



# ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-2829

PAT QUINN, GOVERNOR

LISA BONNETT, DIRECTOR

USEPA  
8-1-1

217/524-3300

April 11, 2013

CERTIFIED MAIL

7012 0470 0001 2997 0788

Clean Harbors Services, Inc.  
Attention: James R. Laubsted  
11800 South Stony Island Avenue  
Chicago, Illinois 60617

Re: 0316000051 -- Cook County  
Clean Harbor Services, Inc.  
ILD 000608471  
Log No. B-16R-CERT  
Received: February 13, 2013  
RCRA Permits File  
Permit Denial

US EPA RECORDS CENTER REGION 5



1000489

Dear Mr. Laubsted:

This letter will acknowledge receipt of the closure certification dated February 8, 2013 and received by the Illinois EPA on February 13, 2013.

According to 35 Illinois Administrative Code (35 Ill. Adm. Code), Section 725.215, and conditions (I)(L)(7) and (II)(L)(6) of the RCRA Permit B-16R, within 60 days after completion of closure of each hazardous waste surface impoundment, waste pile, land treatment, or landfill unit, and within 60 days after completion of final closure, the owner or operator must submit to the Illinois EPA, by registered mail, a certification that the hazardous waste management unit or facility, as applicable, has been closed in accordance with the specifications in the approved closure plan. The certification must be signed by the owner or operator and by a qualified Professional Engineer. Documentation supporting the Professional Engineer's certification must be furnished to the Illinois EPA upon request until the Illinois EPA releases the owner or operator from the financial assurance requirements for closure under Section 724.243(i).

The approved closure plan for this facility consists of the plan which was submitted by James R. Laubsted on March 7, 2012 and the conditions of the June 1, 2012 letter from the Illinois EPA.

The RCRA permit for this facility not only addresses the hazardous waste management units at the facility, but also requires that the Permittee conduct corrective action on the solid waste management units at the facility. The Permittee has completed a RCRA Facility Investigation which has been approved by the Illinois EPA. In addition, the Illinois EPA has approved a conceptual plan for carrying out corrective measures at the facility and is reviewing final plans for these measures. However, the final plan has not been approved. Once the plan is approved by the Illinois EPA, Clean Harbors will be required to implement it and then submit a report documenting the efforts carried out in constructing the approved corrective measure. Furthermore, it must be noted that the approved corrective measures include the establishment of an institutional control placing certain restrictions on future activities at the facility. Finally, it must be noted that once the approved corrective measures are constructed, a long-term groundwater monitoring/management program will have to be implemented as part of the corrective action program at the facility.

## Appeal Rights

The applicant may appeal this final decision to the Illinois Pollution Control Board pursuant to Section 40 of the Act by filing a petition for a hearing within 35 days after the date of issuance of the final decision. However, the 35-day period may be extended for a period of time not to exceed 90 days by written notice from the applicant and the Illinois EPA within the initial 35-day appeal period. If the owner or operator wishes to receive a 90-day extension, a written request that includes a statement of the date the final decision was received, along with a copy of this decision, must be sent to the Illinois EPA as soon as possible.

For information regarding the request for an extension, please contact:

Illinois Environmental Protection Agency  
Division of Legal Counsel  
1021 North Grand Avenue East  
Post Office Box 19276  
Springfield, IL 62794-9276  
217/782-5544

For information regarding the filing of an appeal, please contact:

Illinois Pollution Control Board, Clerk  
State of Illinois Center  
100 West Randolph, Suite 11-500  
Chicago, IL 60601  
312/814-3620



## ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 - (217) 782-3397  
JAMES R. THOMPSON CENTER, 100 WEST RANDOLPH, SUITE 11-300, CHICAGO, IL 60601 - (312) 814-6026

ROD R. BLAGOJEVICH, GOVERNOR

DOUGLAS P. SCOTT, DIRECTOR

217/524-3300

January 11, 2006

Certified Mail

7002 3150 0000 1222 7114

Clean Harbors Services, Inc.  
Attn: Jim Laubsted  
11800 S. Stony Island Avenue  
Chicago, Illinois 60617

**RECEIVED**

JAN 20 2006

Re: 0316000051 - Cook County  
Clean Harbors Svcs Inc.  
ILD000608471  
Log No. B-16-M-58  
RCRA Permit File

**AIR ENFORCEMENT BRANCH,  
U.S. EPA, REGION 5**

Dear Mr. Laubsted:

This letter is to inform you that the Illinois EPA has withdrawn the above referenced application as requested in your letter dated November 22, 2005. The application proposed to operate a lamp-crushing machine in Unit 25. This unit was permitted in the renewal permit issued November 4, 2005 eliminating the need for the modification.

The application is being kept in our files.

Should you have any questions or comments regarding the above, please contact Mark A. Schollenberger, P.E., of my staff at 217/524-3307

Sincerely,



Joyce L. Murrie, P.E.  
Manager, Permit Section  
Bureau of Land

JLM:MAS/mls/063613.doc

cc: USEPA  
John Kryl, Chicago Dept. of Environment



11800 South Stony Island Avenue  
Chicago, IL 60617

773.646.6202  
Fax 773-646-6381  
www.cleanharbors.com

Via Federal Express

July 15, 2005

Regional Administrator  
U.S. Environmental Protection Agency  
Region V  
77 West Jackson Street  
Chicago, IL 60604-3590

Dear Sir:

In accordance with Standard Condition 14 of the RCRA Part B permit - Log B-16, Clean Harbors Services, Inc. ("CHSI") is submitting this written report under the twenty-four hour reporting requirements for noncompliance with the permit which may endanger human health or the environment. CHSI is the operator of the facility at the above address. Specifically, the fire system for a portion of the old CWM portion of the facility was shutdown for repairs.

On July 13, 2005 the fire system was shut down after a jockey pump supplying line pressure to the system failed. After the jockey pump was replaced, the electrical line supplying the unit was found to be supplying only single phase electrical service. Commonwealth Edison was contacted and corrected a transformer problem on July 14<sup>th</sup>. The fire system returned to normal operation on July 14<sup>th</sup>. There were no operations in the old CWM portion of the site while the fire system was shutdown.

I contacted Jim Blough by telephone on July 13<sup>th</sup> to notify the Agency as required.

There were no hazardous substances released at the CHSI facility due to or during this incident. This incident did not cause damage to the environment or human health. There were no injuries involved with this incident.

If you have any questions concerning this incident, please contact me at (773) 646-6202, x233.

Sincerely,

A handwritten signature in dark ink, appearing to read "Jim R. Laubsted", is written over the typed name.

James R. Laubsted  
Facility Compliance Manager



# ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276, 217-782-3397  
JAMES R. THOMPSON CENTER, 100 WEST RANDOLPH, SUITE 11-300, CHICAGO, IL 60601, 312-814-6026

217/524-3300

ROD R. BLAGOJEVICH, GOVERNOR

RENEE CIPRIANO, DIRECTOR

June 17, 2005

Certified Mail

7002 3150 0000 1253 1150

Clean Harbors Services, Inc.  
Attn: Jim Laubsted  
11800 South Stony Island Avenue  
Chicago, Illinois 60617

Re: 0316000051--Cook County  
Clean Harbors Svcs Inc  
ILD000608471  
Log No. #16-TA-6  
RCRA Permit File

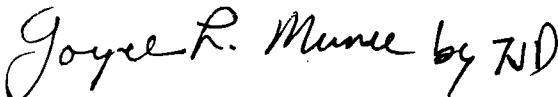
Dear Mr. Laubsted:

This letter is in response to your request dated May 12, 2005 and received May 17, 2005, to renew the Temporary Authorization issued December 16, 2004, to operate a lamp crusher in accordance with the application dated October 20, 2004. This application was subsequently modified on November 10, 2004.

In accordance with 35 Ill. Adm. Code 703.280(e)(3), the Illinois EPA has approved your request to renew the temporary authorization to operate the miscellaneous unit (lamp crusher) at CHSI. Operations must be conducted in accordance with the operating procedures identified in the application for a class III modification dated March 15, 2004 for the lamp crusher, the revisions to the modification request received on August 25, 2004, August 31, 2004 and September 9, 2004, the special conditions in Attachment A to this letter, and the requirements of 35 Ill. Adm. Code 724. This approval shall terminate 180 days from the date of this letter.

If you have any questions regarding this letter, please contact Mark A. Schollenberger, P.E. of my staff at 217/524-3307.

Sincerely,



Joyce L. Munie, P.E.  
Manager, Permit Section  
Bureau of Land

JLM:MAS:bjh\04173s.doc

Attachment

cc: USEPA, Harriet Croke  
USEPA, Jim Blough



11800 South Stony Island Avenue  
Chicago, IL 60617

773.646.6202  
Fax 773-646-6381  
www.cleanharbors.com

Via Federal Express

April 13, 2005

Regional Administrator  
U.S. Environmental Protection Agency  
Region V  
77 West Jackson Street  
Chicago, IL 60604-3590

Dear Sir:

In accordance with Standard Condition 14 of the RCRA Part B permit - Log B-16, Clean Harbors Services, Inc. ("CHSI") is submitting this written report under the twenty-four hour reporting requirements for noncompliance with the permit which may endanger human health or the environment. CHSI is the operator of the facility at the above address. Specifically, the fire system for a portion of the old CWM portion of the facility was shutdown for repairs.

On April 8, 2005 the fire system was shut down to Unit 15 to repair an automatic valve which failed open on that portion of the system. The contractor obtained a replacement and completed the work and the system was returned to normal operation on April 12th. There were no operations in Unit 15 on the old CWM portion of the site while the fire system was shutdown.

I contacted Jim Blough by telephone on April 8<sup>th</sup> to notify the Agency as required.

There were no hazardous substances released at the CHSI facility due to or during this incident. This incident did not cause damage to the environment or human health. There were no injuries involved with this incident.

If you have any questions concerning this incident, please contact me at (773) 646-6202, x233.

Sincerely,

James R. Laubsted  
Facility Compliance Manager

**RECEIVED**  
APR 20 2005

Waste, Pesticides & Toxics Division  
U.S. EPA - REGION 5



11800 South Stony Island Avenue  
Chicago, IL 60617

773.646.6202  
Fax 773-646-6381  
www.cleanharbors.com

Via Federal Express

March 7, 2005

Regional Administrator  
U.S. Environmental Protection Agency  
Region V  
77 West Jackson Blvd.  
Chicago, IL 60604-3590

Dear Sir:

In accordance with its RCRA Part B permit, Clean Harbors Pecatonica, LLC (CHPL) is submitting this written report under the twenty-four hour reporting requirements for noncompliance with the permit which may endanger human health or the environment. CHPL is the operator of the facility located at 6125 N. Pecatonica Road in Pecatonica, IL. Specifically, the water fire system was shutdown due to pump failure allowing the water storage tank to freeze.

On Wednesday morning, March 2, 2005 and employee discovered the fire suppression system recirculation pump had failed. This pump recirculates hot water from the boiler to the 200,000 gallon holding tank and keeps the tank from freezing. CHPL could not determine exactly how much of the tank had frozen and without the pump more would freeze from ambient temperatures. This fire system serves the container storage areas, except reactive storage which has its own foam fire suppression system (not affected by this incident). There is also a dry chemical fire suppression system for repackaging operations which was not affected by this incident. During the entire time of this incident, there has been no waste storage at the CHPL facility. CHPL notified the Pecatonica Fire Department of the situation also.

On Friday morning, March 5, 2005 the recirculation pump was replaced and put into operation. At the present time, there is a small layer of ice several inches thick. The recirculation pump is still supplying 90F water which should completely remove the ice within 24 hours.

I contacted Jim Blough by telephone on March 2<sup>nd</sup> to notify the Agency as required.

There were no hazardous substances released at the CHPL facility due to or during this incident. This incident did not cause any damage to the environment or human health.

RECEIVED  
MAR 08 2005

DIVISION FRONT OFFICE  
Waste, Pesticides & Toxics Division  
U.S. EPA - REGION 5

There were no injuries involved with this incident. CHPL has added pressure gauges so employees would be aware if pump failure occurs.

If you have any questions concerning this incident, please contact me at (773) 646-6202, x233.

Sincerely,

A handwritten signature in black ink, appearing to read "Jim R. Laubsted", written in a cursive style.

James R. Laubsted  
Facility Compliance Manager





11800 South Stony Island Avenue  
Chicago, IL 60617

773.646.6202  
Fax 773-646-6381  
www.cleanharbors.com

Via Federal Express

February 14, 2005

Regional Administrator  
U.S. Environmental Protection Agency  
Region V  
77 West Jackson Street  
Chicago, IL 60604-3590

Dear Sir:

In accordance with Standard Condition 14 of the RCRA Part B permit - Log B-16, Clean Harbors Services, Inc. ("CHSI") is submitting this written report under the twenty-four hour reporting requirements for noncompliance with the permit which may endanger human health or the environment. CHSI is the operator of the facility at the above address. Specifically, there was a fire in an electrical transformer.

At approximately 12:30 P.M. on February 10, 2005 an employee was taking apart a drained non-PCB electrical transformer to reclaim copper. This was done in a paved area near the former incinerator. In order to remove bolts, he began to use a cutting torch. The transformer caught fire. Another employee used a monitor to spray water on the transformer and put out the fire. The Chicago Fire Department was called and they responded to the site. Clean Harbors continued to spray water on the transformer to make sure it didn't reignite. When the fire department was satisfied, the employee stopped spraying transformer. When the fire department left, Clean Harbors continued dismantling the transformer. There was no damage to the site since the transformer was being scraped anyway.

I contacted Jim Blough by telephone on February 10th to notify the Agency as required.

There were no hazardous substances released at the CHSI facility due to or during this incident. This incident did not cause damage to the environment or human health. There were no injuries involved with this incident.

If you have any questions concerning this incident, please contact me at (773) 646-6202, x233.

Sincerely,

A handwritten signature in cursive script, appearing to read "Jim R. Laubsted".

James R. Laubsted  
Facility Compliance Manager

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276, 217-782-3397  
JAMES R. THOMPSON CENTER, 100 WEST RANDOLPH, SUITE 11-300, CHICAGO, IL 60601, 312-814-6026

ROD R. BLAGOJEVICH, GOVERNOR

RENEE CIPRIANO, DIRECTOR

217/524-3300

December 16, 2004

CERTIFIED MAIL

7002 3150 0000 1110 8414

Clean Harbors Services, Inc.  
Attn: Jim Laubsted  
11800 South Stony Island Avenue  
Chicago, Illinois 60617

Re: 0316000051--Cook County  
Clean Harbors Services, Inc. (CHSI)  
ILD000608471  
Log No. #16-TA-6  
RCRA Permit File

Dear Mr. Laubsted:

This letter is in response to your request for a Temporary Authorization, pursuant to 35 Ill. Adm. Code 703.280(3), to operate a lamp crusher in accordance with the application dated October 20, 2004. This application was subsequently modified on November 10, 2004.

In accordance with 35 Ill. Adm. Code 703.280(e)(3), the Illinois EPA has approved your request to operate the miscellaneous unit (lamp crusher) at CHSI. Operations must be conducted in accordance with the operating procedures identified in the application for a class III modification dated March 15, 2004 for the lamp crusher, the revisions to the modification request received on August 25, 2004, August 31, 2004 and September 9, 2004, the special conditions in Attachment A to this letter, and the requirements of 35 Ill. Adm. Code 724. This approval shall terminate 180 days from the date of this letter.

If you have any questions regarding this letter, please contact Mark A. Schollenberger, P.E. of my staff at 217/524-3307.

Sincerely,



Joyce L. Munie, P.E.  
Manager, Permit Section  
Bureau of Land

JLM:MAS:bjh\04173s.doc

Attachment

cc: USEPA, Harriet Croke  
USEPA, Jim Blough

## ATTACHMENT A

### **SPECIAL CONDITIONS FOR THE TEMPORARY AUTHORIZATION TO CONSTRUCT**

1. This temporary authorization (TA) allows for operation of the following units identified in the application Log No. 16-TA-6:

- a. Lamp Crusher; and
- b. Ancillary Equipment Associated with This Unit (e.g. fire suppression, emission collection and control, residue collection, etc.,)

The temporary authorization does not allow the operation of any other unit which has not been authorized in the facilities RCRA part b permit, log no.#B-16.

2. The Permittee shall operate the units identified above in accordance with the approved permit applications (Log No. B-16-TA-6), subject to the following modifications:

- a. Only wastes identified in Attachment A of the facility's approved Part B permit for crushing may be placed in the unit.
- b. The waste must be analyzed in accordance with the waste analysis plan contained in the approved Part B permit.
- c. The Permittee shall not operate the lamp crusher unless the air pollution control system unit is operable.
- d. The Permittee shall operate the lamp crusher for 10 minutes following the last feed of lamps for processing before shutting down the unit.
- e. To ensure the unit is operating correctly, each drum of co-products shall be visually inspected daily for signs of cross-contamination. The unit shall be shut down if signs of cross-contamination are present and remain shut down until the reason for the cross-contamination is fixed.
- f. The Permittee shall not operate the lamp crusher unless the mercury monitoring devices are operating. The mercury concentration in the stack shall be monitored daily and the work place air quality shall be monitored continuously.
- g. To ensure breakthrough has not occurred, the permittee shall conduct daily monitoring of the mercury concentration in the air at the inlet and outlet points of the carbon units shall be determined daily. The activated carbon shall be replaced

8. The lamp crusher shall be closed, and all waste and waste residue removed at the expiration of the temporary authorization unless the Permittee has received a RCRA Part B permit to operate these units.
9. The Permittee shall provide and maintain financial assurance to complete closure of these units. Financial assurance must be maintained in accordance with the applicable requirements of 35 Ill. Adm. Code 724 Subpart H.

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11800 South Stony Island Avenue  
Chicago, IL 60617  
773.646.6202  
Fax 773.646.6381

RECEIVED

OCT 27 2003

U.S. EPA REGION 5  
OFFICE OF REGIONAL ADMINISTRATOR

October 23, 2003

Notice is hereby given to all interested persons that Clean Harbors Services, Inc. (CHSI), a wholly owned subsidiary of Clean Harbors, Inc. and a permitted hazardous waste treatment, storage and transfer facility located at 11800 S. Stony Island Ave in Chicago, IL has submitted a renewal of the RCRA Part B permit to the Illinois Environmental Protection Agency. The renewal application was submitted May 7, 2003. The current Part B permit expires November 4, 2003. The changes to the permit application involve informational changes (e.g.: name changes) and the addition of three new USEPA hazardous waste codes (K176, K177 and K178). CHSI is not requesting additional tank or container storage or additional processes beyond what is currently permitted.

Copies of the Part B permit application are available for review during normal business hours at CHSI's business office at 11800 S. Stony Island Ave in Chicago, IL. A copy of the application is also available at the Olive-Harvey College Library at 10001 S Woodlawn Avenue in Chicago, IL. The permittee's compliance history during the life of the existing permit is available from the Agency's contact person. Information regarding application viewing time and place, CHSI's existing permit, applicable regulatory requirements, permit modification procedures and CHSI's compliance history may be obtained from Ms. Mara McGinnis @ IEPA, 1021 North Grand Avenue East, Springfield, IL 62794-9276 or at (217) 524-3300. The IEPA regional office is located at 9511 West Harrison Street, Des Plaines, IL 60016 or at (847) 294-4000.

To be placed on the CHSI mailing list, contact Jim Laubsted at 11800 S. Stony Island Avenue, Chicago, IL 60617 or phone (773) 646-6202..

If you have any questions regarding this notice, please contact me at (773) 646-6202.

Sincerely,

A handwritten signature in cursive script, appearing to read "Jim R. Laubsted".

James R. Laubsted  
Facility Compliance Manager



1 South Stony Island Avenue  
Chicago, IL 60617  
773.646.6202  
Fax 773.646.6381

RECEIVED

JUN 16 2003

Certified Mail #7002 2030 0004 5462 7633

Technical Support and Planning Section  
Waste Management Branch  
Waste, Pesticides and Toxics Division  
U.S. EPA - Region 5

June 9, 2003

Regional Administrator  
U.S. Environmental Protection Agency  
77 West Jackson Street  
Chicago, IL 60604-3590

Re: Temporary Fire Suppression System Shutdown  
24-Hour Report

Dear Sir:

In accordance with Standard Condition 14 of the RCRA Part B permit - Log B-16, Clean Harbors Services, Inc. (CHSI) is submitting this written report under the twenty-four hour reporting requirements for noncompliance with the permit which may endanger human health or the environment. CHSI is the operator of the facility at the above address. Specifically, the fire system for the old CWM portion of the facility was shutdown for testing. The details of the incident are provided below.

On June 7th facility personnel shutdown the fire system and filled the underground pipes with helium. The underground pipes were then checked for leaks. This testing continued of June 8th until the system was reactivated at approximately 2:30 P.M. There were no operations on the old CWM portion of the facility while the fire system was shutdown. Unit 61 when the system was shutdown.

CHSI contacted the Chicago Fire Department in anticipation of the testing. The annual site visit by all three shifts of responding firefighters was held prior to the testing to refamiliarize them with the facility.

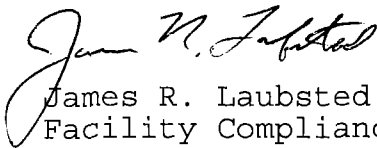
I contacted Jim Blough of your office by telephone to notify the Agency as required.

There were no hazardous substances released at the CHSI facility due to or during this incident. This incident did not cause damage to the environment or human health. There were no injuries involved with this incident.

Regional Administrator  
June 9, 2003  
Page 2

If you have any questions concerning this incident,  
please contact me at (773) 646-6202.

Sincerely,

A handwritten signature in cursive script, appearing to read "James R. Laubsted".

James R. Laubsted  
Facility Compliance Manager



11800 South Stony Island Avenue  
Chicago, IL 60617  
773.646.6202  
Fax 773.646.6381

Via Facsimile 312-747-8830

May 23, 2003

District Chief Bates  
District 6  
Chicago Fire Department

Dear Chief Bates:

I spoke with Rich Edgeworth of the Chicago Fire Department and he suggested I contact you. Clean Harbors Services, Inc. (CHSI) located at 11800 S. Stony Island Avenue in Chicago is a hazardous waste treatment and storage facility. Because this waste storage includes flammable materials, the facility has an automatic foam/water fire sprinkler system.

CHSI intends to check the underground portion of the fire system for leaks. This will involve shutting off the system and filling the pipes with helium for leak detection. The areas affected will include the flammable tank farm (Unit 16), truck and railcar unloading areas to the tank farm (Units 13 and 15), truck staging area (Unit 59), lab pack building (Unit 25), fuel blending building (Unit 43), and drum storage buildings (Units 26 and 61). During this time, no operations will be conducted in the affected areas, although flammable materials will remain in storage. The fire system (water only) also serves several buildings without waste storage including the administration building, personnel building, laboratory, operations center, utility building, maintenance building and logistics building. After checking for leaks, the fire system will be restored to active service.

CHSI intends to test for leaks on June 7<sup>th</sup> and 8<sup>th</sup>. Please forward this information to anyone in the Chicago Fire Department who should have this information.

If you have any questions concerning this letter, please contact me at 773-646-6202, x233.

Sincerely,

James R. Laubsted  
Facility Compliance Manager





ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276

JAMES R. THOMPSON CENTER, 100 WEST RANDOLPH, SUITE 11-300, CHICAGO, IL 60601

GEORGE H. RYAN, GOVERNOR

RENEE CIPRIANO, DIRECTOR

217/524-3300

October 30, 2002

CERTIFIED MAIL

7001 2510 0002 3279 8847

Clean Harbors Services, Inc.  
Attn: James Laubsted  
11800 South Stony Island Avenue  
Chicago, Illinois 60617

Re: 0316000051 - Cook County  
Clean Harbors Svcs Inc.  
ILD000608471  
Log No. 16-TA-5  
RCRA Permit File

Dear Mr. Laubsted:

This letter is in response to your request for a Temporary Authorization, pursuant to 35 Ill. Adm. Code 703.280(e), to operate a fire suppression system for roll-off containers stored in Unit Q1 in accordance with the application dated September 20, 2002.

In accordance with 35 Ill. Adm. Code 703.280(e)(3), the Illinois EPA has approved your request to operate the fire suppression system. Operations must be conducted in accordance with the operating procedures identified in the application for a class II modification identified in the Illinois EPA's records as Log 16-TA-5 dated September 20, 2002, the special conditions in Attachment A to this letter, and the requirements of 35 Ill. Adm. Code 724. This approval shall terminate 180 days from the date of this letter.

If you have any questions regarding this letter, please contact Mark A. Schollenberger, P.E., of my staff at 217/524-3307.

Sincerely,

Joyce L. Munie, P.E.  
Manager, Permit Section  
Bureau of Land

JLM:MAS\mls\020771s.doc

Attachment A

cc: USEPA

## ATTACHMENT A

### Special Conditions For The Temporary Authorization to Construct and Operate

1. This temporary authorization (TA) allows for operation of an automatic fire suppression system for roll-offs/intermodals in unit Q1 and a UV/IR flame detector system identified in the application Log No. 16-TA-5.
2. The Permittee shall operate the unit identified above in accordance with the approved permit application and the conditions of the approved Part B permit.
3. The Permittee shall inspect and test the fire detection system in accordance with Attachment B of the approved Part B permit, which is annually.
4. The Permittee shall inspect and test the fire suppression system annually.

MAS\mls\020771s.doc



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

8/27/01

AUG 27 2001

REPLY TO THE ATTENTION OF:

DW-8J

RE: Clean Harbors Services, Inc. and  
Illinois International Port District  
Chicago, Illinois 60617  
ILD 000 608 471

Dear Sir/Madam:

On August 27, 2001, the United States Environmental Protection Agency (U.S. EPA), Region 5, issued the modified Federal portion of a Resource Conservation and Recovery Act (RCRA) Hazardous Waste Permit for the above-referenced facility. The modified RCRA permit will allow Clean Harbors Services, Inc. and Illinois International Port District to install new equipment and improve its operations, thereby ensuring protection to human health and the environment.

This letter supplements the enclosed Response to Comments generated as a result of the public comment period held for the draft permit. This Response to Comments was prepared by the U.S. EPA and sent to interested parties.

I have made the final decision to issue the modified Federal portion of the RCRA Hazardous Waste Permit for this facility located in Chicago, Illinois. Unless review is requested under Title 40 of the Code of Federal Regulations (40 CFR) § 124.19, the Federal portion of this modified RCRA permit becomes effective on August 27, 2001.

Eligibility to appeal this permit is discussed further in 40 CFR § 124.19. The administrative appeal procedures must be completed prior to any action seeking judicial review. The original and one copy of the petition must be received by the U.S. EPA in Washington, D.C., at the address indicated below within 33 days of the date of this letter.

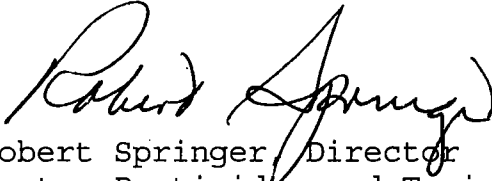
United States Environmental Protection Agency  
Environmental Appeals Board  
Ariel Rios Building  
1200 Pennsylvania Avenue, N.W.  
Washington, D.C. 20460

A copy of the petition should also be sent to:

Waste Management Branch (DW-8J)  
U.S. EPA Region 5  
77 West Jackson Boulevard  
Chicago, Illinois 60604

On behalf of the U.S. EPA, I wish to thank you for your interest in the modified permit conditions for Clean Harbors Services, Inc. in Chicago, Illinois.

Sincerely,

A handwritten signature in cursive script, appearing to read "Robert Springer".

Robert Springer, Director  
Waste, Pesticides and Toxics Division

Enclosure

Summary of Permit

DW-8J

RE: Clean Harbors Serves, Incorporated.  
Chicago, Illinois 60617  
ILD 000 608 471

The modification modified conditions in the existing Federal portion of Clean Harbors Serves, Incorporated (CHSI) permit. This modification allows CHSI to construct a drum shredder system with a hydropulper. The U.S. EPA portion of the permit deals with the Subpart X unit and the Subpart CC controls that are to be installed to ensure the protection of human health and the environment.

Mark Schollenberger, IEPA  
P.O. Box 19276  
Springfield, IL 62794-9276

Mr. Anthony G. Ianello  
Illinois International Port District  
3600 E. 95<sup>th</sup> Street  
Chicago, IL 60617

Mr. Anthony G. Ianello  
Illinois International Port District  
3600 E. 95<sup>th</sup> Street  
Chicago, IL 60617

Mr. James Laubsted  
Clean harbors Services, Inc.  
11800 S. Stony Island Avenue  
Chicago, IL 60617

Mr. Bob Burke  
Safety-Kleen Systems, Inc.  
633 East 138<sup>th</sup> Street  
Dolton, IL 60419

Author's Copy

Section's Copy

WMB's Copy

WPTD's Copy

ORC's Copy



SERVICES, INC.

11800 SOUTH STONY ISLAND AVENUE • CHICAGO, IL 60617

(773) 646-5111 • FAX (773) 646-0026

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RECEIVED  
AUG 29 2001

WASTE MANAGEMENT BRANCH  
Waste, Pesticides & Toxics Division  
U.S. EPA - REGION 5

August 27, 2001

Mr. James Blough  
Waste Management Branch, DW-8J  
Waste, Pesticides and Toxics Division  
United States Environmental Protection Agency  
77 West Jackson Boulevard  
Chicago, IL 60604-3590

Dear Mr. Blough:

Clean Harbors Services, Inc. (CHSI) is submitting additional information concerning the permit modification for a hazardous waste shredding system and metalwash system (Part B Log No. 16-M-39). CHSI intends to modify Unit 68 for ease of forklift operation in the unit. The ramp going from Unit 24 into Unit 68 had a 12 inch drop requiring a longer ramp. CHSI intends to modify this unit by increasing the containment size, raising the containment floor, extending the ramp length, and putting a canopy over the unit. This results in an increase of the excess containment capacity above the required containment capacity. CHSI Drawing No. 4287 shows the modifications and includes containment capacity calculations. The drawing has been certified by an Illinois Professional Engineer and is enclosed.

If you have any changes concerning this modification, please contact me at (773) 646-6202.

Sincerely,

James R. Laubsted  
Facility Compliance Manager



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AUG 09 2001

NOTICE

WASTE MANAGEMENT BRANCH  
Waste, Pesticides & Toxics Division  
U.S. EPA—REGION 5

August 6, 2001

To: Facility Mailing List Addresses

Re: Clean Harbors Services, Inc.

Notification of RCRA Temporary Authorization Request

Clean Harbors Services, Inc. (CHSI) is a permitted hazardous waste treatment, storage, and disposal (TSD) facility located at 11800 South Stony Island Avenue in Chicago, IL. CHSI currently operates under a RCRA Part B permit issued by the IEPA on September 30, 1993.

On August 3, 2001 CHSI requested a Temporary Authorization to the facility's RCRA Part B permit for the following operations:

- 1) to add dry ice to roll-off/intermodal containers during hot weather conditions to reduce the temperature of waste stored in the containers; and
- 2) to add water to black powder in containers to "wet" the waste for proper transportation and off-site disposal.

This notice is being sent to you in accordance with IEPA's Temporary Authorization regulations in 35 IAC 703.280(e)(2) which require CHSI to send a notice of the request to all persons on the facility mailing list within 7 days after the authorization request is made.

If you have any further questions regarding this notice, please feel free to contact me at (773)646-6202.

Sincerely,

James R. Laubsted

CHSI Facility Compliance Manager

cc: Facility Mailing List





SERVICES, INC.

11800 SOUTH STONY ISLAND AVENUE • CHICAGO, IL 60617

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Certified Mail # 7099 3400 0015 2715 2128

July 26, 2001

Regional Administrator  
U.S. Environmental Protection Agency  
77 West Jackson Boulevard  
Chicago, IL 60604-3590

Re: 24-Hour Report

Dear Sir:

In accordance with Standard Condition 14 of the RCRA Part B Permit - Log B-16, Clean Harbors Services, Inc. (CHSI) is submitting this written report under the twenty-four hour reporting requirements for noncompliance with the permit which may endanger human health or the environment. CHSI is the operator of the facility at the above address. The incident involved a fire in a roll-off container in which paint filters had been bulked. The fire occurred when the roll-off was in storage in Unit B. The details of the incident are provided below.

On July 21st at 5:45 A.M. a security guard noted smoke coming from a roll-off container located in the fifth bay of Unit B. The Chicago Fire department was called. Upon arrival, the fire department sprayed approximately 500 gallons of AFFF (firefighting foam solution) on the roll-off container. Van trailers in the two adjoining bays (#4 and #6) were then moved using the plant yard truck to allow complete access to the roll-off container and limit any potential exposures. As a precaution the fire department added water to the roll-off container. The fire department stood by approximately one hour to make sure the material did not reignite. CHSI also kept a fire watch throughout the weekend as a precaution.

The roll-off contained paint filters which were bulked into the roll-off from drums beginning July 12th. When the roll-off container was full it was moved to Unit B. Examination of the contents of the roll-off container found only about 5% of the paint filters involved in the fire along with the roll-off cover. This roll-off was shipped off-site

Regional Administrator  
July 26, 2001  
Page 2

for disposal today.

CHSI contacted the Illinois Emergency Management Agency July 21st to provide immediate notification as required by facility permits and was given incident number H20011267. Also present at the facility were representatives of the City of Chicago Department of Environment and the Metropolitan Water Reclamation District.

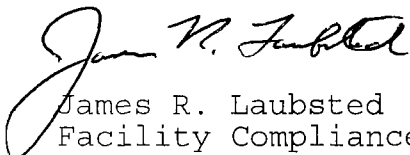
I contacted Jim Blough by telephone on July 23rd to notify the Agency as required to provide notification during normal working hours.

Unit B contains six individual containment bays with impervious coating. Unit B does not have a canopy. During the incident the weather was hot and humid. There appeared to be no wind. CHSI believes negligible emissions occurred during this incident. This incident did not cause damage to the environment or human health. There were no injuries involved with this incident.

CHSI has investigated the incident and materials involved. Another roll-off on-site was also checked, but no incident occurred with that roll-off. The roll-off did have a temperature of 140 degrees in the sun. It appears high daytime temperatures combined with high dewpoints (keeping nighttime temperatures high) caused the paint filters to also retain elevated temperatures. CHSI has instituted a policy of putting dry-ice into roll-off containers during hot conditions to suppress temperatures in the container.

If you have any further questions concerning this incident, please contact me at (773)646-6202.

Sincerely,



James R. Laubsted  
Facility Compliance Manager



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(773) 646-6202 • FAX (773) 646-6381  
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B.1.1

May 18, 2001

Mr. James Blough,  
Waste Management Branch, DW-8J  
Waste, Pesticides and Toxics Division  
United States Environmental Protection Agency  
77 West Jackson Boulevard  
Chicago, IL 60604-3590

Dear Mr. Blough:

Clean Harbors Services, Inc. (CHSI) is providing comments to a RCRA draft permit modification for the CHSI facility for a hazardous waste shredding system and metalwash system.

The first comment deals with the Federal draft permit under Section III, Air Emission Standards. Part D includes references and conditions for a contaminated air filter box in numbers 2 and 4. The proposed operation does not include a contaminated filter box. CHSI requests that the reference to the contaminated filter box be removed in number 2 and the condition number 4 be completely removed.

The second comment also deals with the Federal draft permit under Section III, Air Emission Standards. For Part D, number 3, CHSI must maintain the organic concentration in the transport ductwork so the concentration does not 50% of the Lower Explosion Limit (LEL) based on the concentration of the organic constituents in the air stream. A review of conceptual design for emissions control indicate the system would probably meet this requirement during operating conditions. However, looking at the worst case scenario, the possibility did exist for the concentration of organic compounds to exceed 50% of the LEL. This was based on the use of LEL data for compounds at a normal oxygen level of 21% by volume in air. Due to inert gas purge and blanketing, the actual oxygen level in the vapor stream will be much lower in the system vents.

In order to assure the organic concentration in the vapor stream will be less than 50% of the LEL at all times, the vent rates will be increased to 800 CFM in the shredding system and 500 CFM for the storage tank and metalwash system. This increase in vent

Mr. James Blough

May 18, 2001

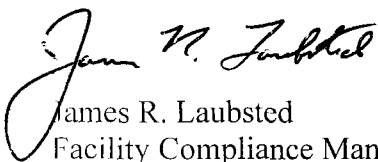
Page 2

rates will necessitate changes in duct work sizes, addition of a vacuum breaker, relocation of the induced flow blower and addition of flame arrestors. These changes will be submitted in the final design drawings. The carbon loading will not change with these modifications.

The third comment deals with changes to Unit 24 due to requirements of Chicago Building Codes. The City of Chicago does not allow shredding operations in buildings larger than 1000 square feet. To meet this requirement, CHSI is modifying the building to be smaller. The building will no longer include the Hydropulpar Tank (T-414) which will now be located outside. A canopy will be added to the outside portion to cover that area. Two stairways will be added to the outside of the building to provide egress from the building. The containment curb is increased from six to nine inches to provide for more containment to the reduced containment area. CHSI also intends to relocate the control room for the operation from Unit 42 to Unit 23. CHSI is including revised CHSI Drawings 4287 and 4288 which include revised containment capacity calculations.

If you have any questions concerning these comments, please contact me at 773-646-6202, x233.

Sincerely,



James R. Laubsted  
Facility Compliance Manager

# CleanHarbors<sup>®</sup>

SERVICES, INC.

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FEB 15 2001

Certified Mail # 7099 3400 0015 2715 0353

MNOHVI PERMIT SECTION - WMB  
Waste, Pesticides & Toxics Division  
U.S. EPA - REGION 5

February 8, 2001

Regional Administrator  
U.S. Environmental Protection Agency  
77 West Jackson Boulevard  
Chicago, IL 60604-3590

Re: 24-Hour Report

Dear Sir:

In accordance with Standard Condition 14 of the RCRA Part B Permit - Log B-16, Clean Harbors Services, Inc. (CHSI) is submitting this written report under the twenty-four hour reporting requirements for noncompliance with the permit which may endanger human health or the environment. CHSI is the operator of the facility at the above address. Specifically, a portion of the fire system for the old CWM portion of the facility was shutdown to reset the system after a heat detector failed. The details of the incident are provided below.

On February 4th the foam system to the Flammable Tankfarm (west) Unit 16 activated when the Protecto-wire heat detector system in the Tank 104 containment bay failed. This detector had been repaired several days earlier, but it appears the detector needed to be replaced. This part of the system was then shut off to replace this detector. No operations were conducted when the system was not operational. A firewatch was conducted while the system was shutdown. The fire system was reactivated after replacement. The foam/water was removed from the containment with a vacuum truck.

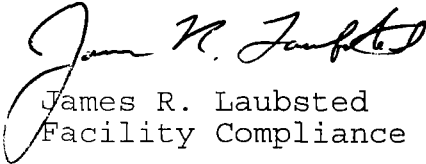
I contacted Jim Blough by telephone on February 5th to notify the Agency as required.

There were no hazardous substances released at the CHSI facility due to or during this incident. This incident did not cause damage to the environment or human health. There were no injuries involved with this incident.

Regional Administrator  
February 8, 2001  
Page 2

If you have any further questions concerning this incident, please contact me at (773)646-6202.

Sincerely,

A handwritten signature in cursive script, appearing to read "James R. Laubsted".

James R. Laubsted  
Facility Compliance Manager



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Certified Mail # 7099 3400 0015 2715 0346

February 2, 2001

FCU-04  
2/11/01

Regional Administrator  
U.S. Environmental Protection Agency  
77 West Jackson Boulevard  
Chicago, IL 60604-3590

Re: 24-Hour Report

Dear Sir:

In accordance with Standard Condition 14 of the RCRA Part B Permit - Log B-16, Clean Harbors Services, Inc. (CHSI) is submitting this written report under the twenty-four hour reporting requirements for noncompliance with the permit which may endanger human health or the environment. CHSI is the operator of the facility at the above address. Specifically, a portion of the fire system for the old CWM portion of the facility was shutdown to reset the system after a heat detector was bumped. The details of the incident are provided below.

At approximately 4:00 P.M. on February 1st the foam system to the Flammable Tankfarm (west) Unit 16 was activated when an employee bumped into the Protecto-wire heat detector system in the Tank 104 containment bay. This part of the system was then shut off to reset this system. No operations were conducted when the system was not operational. A firewatch was conducted while the system was shutdown. The fire system was reactivated at approximately 5:30 P.M. The foam/water was removed from the containment with a vacuum truck.

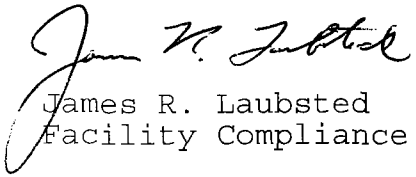
I contacted Jim Blough by telephone at 2 P.M. on February 2nd to notify the Agency as required.

There were no hazardous substances released at the CHSI facility due to or during this incident. This incident did not cause damage to the environment or human health. There were no injuries involved with this incident.

Regional Administrator  
February 2, 2001  
Page 2

If you have any further questions concerning this incident, please contact me at (773)646-6202.

Sincerely,

A handwritten signature in cursive script, appearing to read "James R. Laubsted".

James R. Laubsted  
Facility Compliance Manager





COPY

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January 10, 2001

Mr. James Blough  
U.S. Environmental Protection Agency  
RURA Permit Section, DW-8J  
77 West Jackson Boulevard  
Chicago, IL 60604-3590

Dear Mr. Blough:

Clean Harbors Services, Inc. (CHSI) is submitting the additional information you requested concerning the hazardous waste shredding system permit modification.

CHSI intends to use a flame ionization detector (MicroFID or equivalent) to monitor the carbon adsorption systems for when control devices will not reduce the inlet vapor stream by 95%. CHSI reserves the right to use a detection instrument which meets the performance criteria of Reference Method 21 (40 CFR Part 60).

If you have any further questions concerning this application, please contact me at (773) 646-6202, x233.

Sincerely,

A handwritten signature in dark ink, appearing to read "Jim R. Laubsted".

James R. Laubsted  
Facility Compliance Manager

cc: Robert Tekach, CHSI

# CleanHarbors®

ENVIRONMENTAL SERVICES, INC.

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(773) 646-6202 • FAX (773) 646-6381

December 15, 2000

Visit our Website at [www.cleanharbors.com](http://www.cleanharbors.com)

Mr. James Blough  
U.S. Environmental Protection Agency  
RCRA Permit Section, DW-8J  
77 West Jackson Boulevard  
Chicago, IL 60604-3590

Dear Mr. Blough:

Clean Harbors Services, Inc. (CHSI) is submitting the additional information you requested concerning the hazardous waste shredder system permit modification. Enclosed is the design analysis for the air pollution control system and diagrams showing flow rates through the system. I have also enclosed information on the Envirotrol carbon beds.

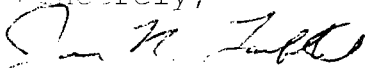
There will not be any vent hoods used to capture emissions vented to the carbon adsorption systems. Emissions will be collected with closed vent systems (piping/ducting) connecting the emission source with the carbon adsorption systems. These are shown on the process flow diagram CHSI Drawing ~~10-14200~~.

The carbon adsorption systems consist of two beds in series. The beds will be monitored each day the units are operating. The system will be monitored before the first carbon bed, between the first and second carbon beds, and after the second carbon bed. If the first bed does not reduce the inlet vapor stream by 95%, the bed will be switched out within 24 hours. The second bed will be switched to the first bed and a new second bed will be added.

CHSI intends to use carbon beds manufactured by Envirotrol. After the beds are spent (as determined by above monitoring), CHSI intends to ship these beds off-site to Envirotrol, Inc. in Darlington, PA for regeneration. Although CHSI intends to use these beds and regeneration site, CHSI reserves the right to use equivalent beds, other regeneration sites or other management of spent carbon as indicated in Attachment 32 of the permit application.

If you have any further questions or require additional information, please contact me at (773) 646-6202.

Sincerely,



James R. Laubsted  
Facility Compliance Manager

# Clean Harbors®

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MNOHWI PERMIT SECTION - WMB  
Waste, Pesticides & Toxics Division  
U.S. EPA - REGION 5

Certified Mail # 7099 3400 0015 2715 1732

November 8, 2000

Regional Administrator  
U.S. Environmental Protection Agency  
77 West Jackson Boulevard  
Chicago, IL 60604-3590

Re: 24-Hour Report

Dear Sir:

In accordance with Standard Condition 14 of the RCRA Part B Permit - Log B-16, Clean Harbors Services, Inc. (CHSI) is submitting this written report under the twenty-four hour reporting requirements for noncompliance with the permit which may endanger human health or the environment. CHSI is the operator of the facility at the above address. Specifically, a portion of the fire system for the old CWM portion of the facility was shutdown to upgrade the system. The details of the incident are provided below.

At approximately 8:30 A.M. on November 6th the fire system to Building 25 was shut off to upgrade this system. Under a permit modification, CHSI is modifying this building to allow flammable waste storage. This requires upgrading the system where flammable waste will be stored. In order to do this the fire system in the south portion of the building (where flammable drums will be stored) was blanked off to allow the fire system in the rest of the building to be reactivated. There was no waste being stored in the south portion (new flammable area) when the fire system was not operating and while the system is being constructed. There were corrosive wastes in storage in the acid and alkaline bays, but no operations were conducted when the system was not operational. A firewatch was conducted while the system was shutdown. The fire system was reactivated at approximately 5:00 P.M. The system will have to be shut-off again to reconnect the south portion after the upgrade is complete.

I contacted Juana Rojo and learned she transferred to another position. I contacted Harriet Croke by telephone on November 6th to notify the Agency as required.



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NOV 16 2000

MNOHWI PERMIT SECTION - WMB  
Waste, Pesticides & Toxics Division  
U.S. EPA - REGION 5

Certified Mail # 7099 3400 0015 2715 1756

November 10, 2000

Regional Administrator  
U.S. Environmental Protection Agency  
77 West Jackson Boulevard  
Chicago, IL 60604-3590

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NOV 16 2000

DIVISION FRONT OFFICE  
Waste, Pesticides & Toxics Division  
U.S. EPA - REGION 5

Re: 24-Hour Report

Dear Sir:

In accordance with Standard Condition 14 of the RCRA Part B Permit - Log B-16, Clean Harbors Services, Inc. (CHSI) is submitting this written report under the twenty-four hour reporting requirements for noncompliance with the permit which may endanger human health or the environment. CHSI is the operator of the facility at the above address. Specifically, a portion of the fire system for the old CWM portion of the facility was shutdown to upgrade the system. The details of the incident are provided below.

At approximately 3:00 P.M. on November 9th the fire system to Building 25 was shut off to upgrade this system. Under a permit modification, CHSI is modifying this building to allow flammable waste storage. This requires upgrading the system where flammable waste will be stored. In order to do this the fire system in the south portion of the building (where flammable drums will be stored) was reconnected to the rest of the fire system. There was no waste being stored in the south portion (new flammable area) when the fire system was not operating and while the system is being constructed. There were corrosive wastes in storage in the acid and alkaline bays, but no operations were conducted when the system was not operational. A firewatch was conducted while the system was shutdown. The fire system was reactivated at approximately 5:30 P.M.

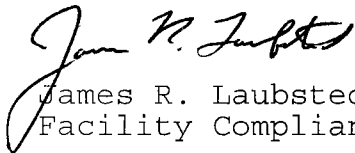
I contacted Harriet Croke by telephone at 11 A.M. on November 10th to notify the Agency as required.

Regional Administrator  
November 10, 2000  
Page 2

There were no hazardous substances released at the CHSI facility due to or during this incident. This incident did not cause damage to the environment or human health. There were no injuries involved with this incident.

If you have any further questions concerning this incident, please contact me at (773)646-6202.

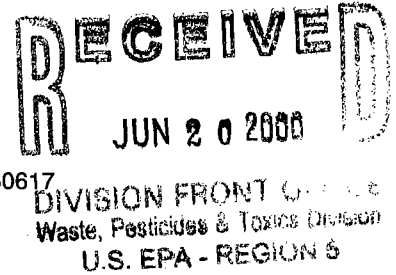
Sincerely,



James R. Laubsted  
Facility Compliance Manager



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Certified Mail # Z345454171

June 16, 2000

Regional Administrator  
US Environmental Protection Agency  
77 West Jackson Boulevard  
Chicago, IL 60604-3590

Re: 24-Hour Report

Dear Sir:

In accordance with Standard Condition 14 of the RCRA Part B Permit - Log B-16, Clean Harbors Services, Inc. (CHSI) is submitting this written report under the twenty-four hour reporting requirements for noncompliance with the permit which may endanger human health or the environment. CHSI is the operator of the facility at the above address. Specifically, the fire system for the old CWM portion of the facility was shutdown after it was activated. The details of the incident are provided below.

At approximately 5:40 P.M. on June 15th, an employee moving equipment in Unit 43 accidentally hit a sprinkler head and broke it. The broken sprinkler head activated the foam system in Building 43. After an inspection of the area, the fire system was shut-off. The fire system was reactivated for all areas except Building 43. The sprinkler head was replaced and the fire system was made fully operational at 8:00 A.M. Foam was removed from the containment area using a vacuum truck. There were no operations in the affected area when the system was not operational.

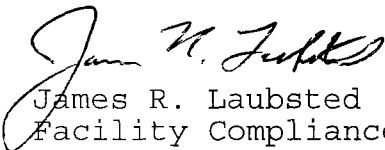
I contacted Juana Rojas by telephone on June 16th to notify the Agency as required.

There were no hazardous substances released at the CHSI facility due to or during this incident. This incident did not cause damage to the environment or human health. There were no injuries involved with this incident.

Regional Administrator  
June 16, 2000  
Page 2

If you have any further questions concerning this incident, please contact me at (773) 646-6202.

Sincerely,

  
James R. Laubsted  
Facility Compliance Manager



ENVIRONMENTAL SERVICES, INC.

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Enforcement & Compliance Assurance Branch  
Waste, Pesticides & Toxics Division  
U.S. EPA - REGION 5

Certified Mail # Z345454234

October 29, 1999

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NOV 05 1999

Regional Administrator  
US Environmental Protection Agency  
77 West Jackson Blvd.  
Chicago, IL 60604-3590

Enforcement & Compliance Assurance Branch  
Waste, Pesticides & Toxics Division  
U.S. EPA - REGION 5

Re: Temporary Fire Suppression System Shutdown  
24-Hour Report

Dear Sir:

In accordance with Standard Condition 14 of the RCRA Part B Permit - Log B-16, Clean Harbors Services, Inc. (CHSI) is submitting this written report under the twenty-four hour reporting requirements for noncompliance with the permit which may endanger human health or the environment. CHSI is the operator of the facility at the above address. Specifically, the fire system for the old CWM portion of the facility was shutdown after it was activated. The details of the incident are provided below.

At approximately 7:30 A.M. on October 28th, the monitor west of Building 42 was hit by a truck when the driver misjudged the turn. This activated the fire system. After an inspection of the areas, the fire system was shut-off. The loop for that monitor was shut-off. The fire system was reactivated for all areas except that monitor, by 9 A.M. on October 28th. This monitor utilizes water only. Repairs are being done by an outside contractor. The monitor east of Unit 25 covers the same areas as the monitor west of Unit 42. There were no operations in affected areas when the system was not operational.

I contacted Juana Rojas by telephone on October 28th to notify the Agency as required.

There were no hazardous substances released at the CHSI facility due to or during this incident. This incident did not cause damage to the environment or human health. There were no injuries involved with this incident.

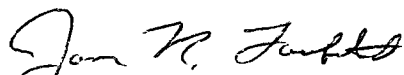


Regional Administrator  
October 29, 1999  
Page 2

The monitor west of Unit 42 had four guards surrounding the monitor for protection. These will also be replaced.

If you have any further questions concerning this incident, please contact me at (773)646-6202.

Sincerely,



James R. Laubsted  
Facility Compliance Manager

RECEIVED  
JUL 15 1999

IN THE UNITED STATES BANKRUPTCY COURT  
FOR THE NORTHERN DISTRICT OF GEORGIA  
GAINESVILLE DIVISION

DIVISION FRONT OFFICE  
Waste, Pesticides & Toxics Division  
U.S. EPA - REGION 5

IN RE: CHAPTER 11

THE GILBERT AND BENNETT  
MANUFACTURING COMPANY, : CASE NO. G98-22358

Debtor. : JUDGE BRIZENDINE

**ORDER AND NOTICE REGARDING DEBTOR'S MOTION  
FOR APPROVAL OF SALE OF REAL PROPERTY  
IN RIDGEFIELD, CONNECTICUT  
FREE AND CLEAR OF LIENS AND ENCUMBRANCES**

The Gilbert and Bennett Manufacturing Company, Debtor and Debtor-in-Possession herein, has filed a MOTION FOR APPROVAL OF SALE OF REAL PROPERTY IN RIDGEFIELD, CONNECTICUT FREE AND CLEAR OF LIENS AND ENCUMBRANCES (the "Motion"). The Debtor has entered into an agreement (the "Agreement"), subject to approval by the Bankruptcy Court, to sell its real property located in Ridgefield, Connecticut (the "Property"), known as the Great Pond and Beach. A true and correct copy of the Agreement is attached to the Motion as Exhibit "A". The Agreement provides for the sale of the Property to the Town of Ridgefield, Connecticut (the "Purchaser"), for a purchase price of \$150,000, at a closing scheduled for thirty (30) days following entry of an order of the Bankruptcy Court approving the sale.

The Court finds that good cause exists to consider the relief sought by the Debtor as set forth herein. Therefore,

**IT IS ORDERED AND ADJUDGED** that the Court will consider the relief sought by the Debtor in its Motion at a hearing on the 25th day of August, 1999, at 9:30 o'clock A.M., in Courtroom 103 of the U.S. Courthouse, 33 Spring Street, Atlanta, Georgia 30303. At the hearing set forth above, the Debtor may entertain higher offers on substantially the same terms and conditions from other parties appearing at the hearing and the Court may authorize sale of the Property to a purchaser other than the Town of Ridgefield, Connecticut, who presents an offer more favorable to the Debtor's estate and its creditors.

**IT IS FURTHER ORDERED** that any party objecting to the relief sought as set forth in the Motion must file such objection in writing on or before five (5) business days prior to the hearing set forth above and must serve such objection on counsel for the Debtor, Laura E. Woodson, Lamberth, Bonapfel, Cifelli & Stokes, P.A., 3343 Peachtree Road, NE, Suite 550,

Atlanta, Georgia 30326. Any objection not timely filed will be deemed waived and forever barred.

**IT IS FURTHER ORDERED** that the Debtor is directed to serve this Order and Notice on the United States Trustee, counsel for the Committee of Unsecured Creditors, and all other creditors entitled to notice pursuant to this Court's Order Limiting Notice.

SO ORDERED, this 7th day of July, 1999.

ROBERT E. BRIZENDINE  
UNITED STATES BANKRUPTCY JUDGE

Prepared and Presented by:

LAMBERTH, BONAPFEL,  
CIFELLI & STOKES, P.A.  
Attorneys for Debtor

By: Laura E. Woodson  
J. Michael Lamberth  
Georgia Bar No. 431975  
Laura E. Woodson  
Georgia Bar No. 775310  
3343 Peachtree Road, NE, Suite 550  
Atlanta, Georgia 30326  
(404) 262-7373

Identification of parties to be served pursuant to BLR 9013-3(c)(2), N.D., Ga.:

J. Michael Lamberth, Lamberth, Bonapfel, Cifelli & Stokes, P.A. Suite 550, 3343 Peachtree Road, NE, Atlanta, Georgia 30326

United States Trustee, Office of the U.S. Trustee, 362 Richard B. Russell Federal Building, 75 Spring Street, S.W., Atlanta, GA 30303

William G. Hays, Jr., William G. Hays & Associates, Inc., 1422 West Peachtree Street, Suite 218, Atlanta, Georgia 30309

James R. Sacca, Macey, Wilensky, Cohen, Wittner & Kessler, Marquis Two Tower, Suite 600, 285 Peachtree Center Ave., Atlanta, Georgia 30303

James A. Pardo, Jr., King & Spalding, 49th Floor, 191 Peachtree Street, Atlanta, Georgia 30303

IN THE UNITED STATES BANKRUPTCY COURT  
FOR THE NORTHERN DISTRICT OF GEORGIA  
GAINESVILLE DIVISION

IN RE: : CHAPTER 11  
: :  
THE GILBERT AND BENNETT : CASE NO. G98-22358  
MANUFACTURING COMPANY, :  
Debtor. : JUDGE BRIZENDINE

ORDER AND NOTICE REGARDING DEBTOR'S MOTION  
FOR APPROVAL OF SALE OF REAL PROPERTY  
IN BEECH MOUNTAIN, NORTH CAROLINA

The Gilbert and Bennett Manufacturing Company, Debtor and Debtor-in-Possession herein, has filed a MOTION FOR APPROVAL OF SALE OF REAL PROPERTY IN BEECH MOUNTAIN, NORTH CAROLINA (the "Motion"). The Debtor has entered into an agreement (the "Agreement"), subject to approval by the Bankruptcy Court, to sell eight (8) lots located in Beech Mountain, North Carolina (the "Property"). A true and correct copy of the Agreement is attached to the Motion as Exhibit "A". The Agreement provides for the sale of the Property to Mountain View Homes, Inc. (the "Purchaser"), on the following terms and conditions:

- (a) the Purchaser will purchase the Property for a purchase price of \$25,500, at a closing to occur within 10 days following the later of entry of an order of the Bankruptcy Court approving the sale;
- (b) upon closing, the Purchaser will assume liability for pending road paving assessments to be levied by the Town of Beech Mountain and delinquent Beech Mountain Club dues and assessments for each lot.

The Court finds that good cause exists to consider the relief sought by the Debtor as set forth herein. Therefore,

**IT IS ORDERED AND ADJUDGED** that the Court will consider the relief sought by the Debtor in its Motion at a hearing on the 14<sup>th</sup> day of September, 1999, at 2:00 o'clock P.M., in Courtroom 103 of the U.S. Courthouse, 121 Spring Street, Gainesville Georgia. At the hearing set forth above, the Debtor may entertain higher offers on substantially the same terms and conditions from other parties appearing at the hearing and the Court may authorize sale of the Property to a purchaser other than Mountain View Homes, Inc., who presents an offer more favorable to the Debtor's estate and its creditors.

**IT IS FURTHER ORDERED** that any party objecting to the relief sought as set forth in the Motion must file such objection in writing on or before five (5) business days prior to the

hearing set forth above and must serve such objection on counsel for the Debtor, Laura E. Woodson, Lamberth, Bonapfel, Cifelli & Stokes, P.A., 3343 Peachtree Road, NE, Suite 550, Atlanta, Georgia 30326. Any objection not timely filed will be deemed waived and forever barred.

**IT IS FURTHER ORDERED** that the Debtor is directed to serve this Order and Notice on the United States Trustee, counsel for the Committee of Unsecured Creditors, and all other creditors entitled to notice pursuant to this Court's Order Limiting Notice.

**SO ORDERED**, this 12<sup>th</sup> day of August, 1999.

*[Signature]*

ROBERT E. BRIZENDINE  
UNITED STATES BANKRUPTCY JUDGE

Prepared and Presented by:

LAMBERTH, BONAPFEL,  
CIFELLI & STOKES, P.A.  
Attorneys for Debtor

By: *[Signature]*  
Laura E. Woodson  
Georgia Bar No. 775310  
3343 Peachtree Road, NE, Suite 550  
Atlanta, Georgia 30326  
(404) 262-7373

**Identification of parties to be served pursuant to BLR 9013-3(c)(2), N.D., Ga.:**

J. Michael Lamberth, Lamberth, Bonapfel, Cifelli & Stokes, P.A. Suite 550, 3343 Peachtree Road, NE, Atlanta, Georgia 30326

United States Trustee, Office of the U.S. Trustee, 362 Richard B. Russell Federal Building, 75 Spring Street, S.W., Atlanta, GA 30303

William G. Hays, Jr., William G. Hays & Associates, Inc., 1422 West Peachtree Street, Suite 218, Atlanta, Georgia 30309

James R. Sacca, Macey, Wilensky, Cohen, Wittner & Kessler, Marquis Two Tower, Suite 600, 285 Peachtree Center Ave., Atlanta, Georgia 30303

James A. Pardo, Jr., King & Spalding, 49th Floor, 191 Peachtree Street, Atlanta, Georgia 30303

David R. Paletta, 910 West King Street, Boone, North Carolina 28607



ENVIRONMENTAL SERVICES, INC.

11800 SOUTH STONY ISLAND AVENUE • CHICAGO, IL 60617

(773) 646-6202 • FAX (773) 646-6381

Visit our Website at [www.cleanharbors.com](http://www.cleanharbors.com)

Certified Mail # Z037828663

June 9, 1999

Regional Administrator  
US Environmental Protection Agency  
77 West Jackson Blvd.  
Chicago, IL 60604-3590

Re: Temporary Fire Suppression System Shutdown  
24-Hour Report

Dear Sir:

In accordance with Standard Condition 14 of the RCRA Part B Permit - Log B-16, Clean Harbors Services, Inc. (CHSI) is submitting this written report under the twenty-four hour reporting requirements for noncompliance with the permit which may endanger human health or the environment. CHSI is the operator of the facility at the above address. Specifically, the fire system for the old CWM portion of the facility was shutdown after it was activated. The details of the incident are provided below.

At approximately 6:30 P.M. on June 6th, the fire system for the Truck Unloading Platform (Unit 15) and East Flammable Storage Tankfarm (Unit 16) were activated by the manual pull stations. The pull stations are located next to one another near Unit 15. After an inspection of the areas, the fire system was shut-off. The pull stations were reset. The fire system was reactivated for all areas except Unit 15, which was reactivated by 11 A.M. on June 7th. Foam was removed from the containment areas by using a vacuum truck. There were no operations in affected areas when the system was not operational.

I contacted Juana Rojas by telephone on June 7th to notify the Agency as required.

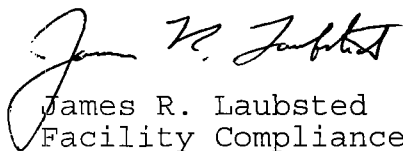
There were no hazardous substances released at the CHSI facility due to or during this incident. This incident did not cause damage to the environment or human health. There were no injuries involved with this incident.

Regional Administrator  
June 9, 1999  
Page 2

The two pull stations were fully extended as if they had been pulled. There were no reports of manually activating the pull systems.

If you have any further questions concerning this incident, please contact me at (773)646-6202.

Sincerely,

A handwritten signature in cursive script, appearing to read "James R. Laubsted".

James R. Laubsted  
Facility Compliance Manager



ENVIRONMENTAL SERVICES, INC.

11800 SOUTH STONY ISLAND AVENUE • CHICAGO, IL 60617  
(773) 646-5111 • FAX (773) 646-0026

RECEIVED

MAR 24 1998

DIVISION FRONT OFFICE  
Waste, Pesticides & Toxics Division  
U.S. EPA - REGION 5

Certified Mail # P475351662

March 19, 1998

Regional Administrator  
US Environmental Protection Agency  
77 West Jackson Boulevard  
Chicago, IL 60604-3590

Re: March 17, 1998  
Temporary fire suppression system shutdown  
24-Hour Report

Dear Sir:

In accordance with Standard Condition 14 of the RCRA Part B Permit Log B-16, Clean Harbors Services, Inc. (CHSI) is submitting this written report under the twenty-four hour reporting requirements for noncompliance with the permit which may endanger human health or the environment. CHSI is the operator of the facility at the above address. Specifically, the fire system for the old CWM portion of the facility was shut down after it was activated accidentally. The details for the incident are provided below.

At approximately 10:00 A.M. on March 17th, a sheet of ice fell off the canopy covering Unit 15, the truck loading/unloading area to the flammable tankfarm. The sheet of ice fell onto the pull station next to the valve house on the north side of unit 15. The ice damaged the pull station activating the foam deluge system to the east tankfarm containment areas. After an inspection of the area, the fire system was shut-off. The pull station was repaired and the fire system made fully operational at approximately 11:00 A.M. Foam was removed from the containment areas using a vacuum truck. There were no operations in affected areas when the system was not operational.

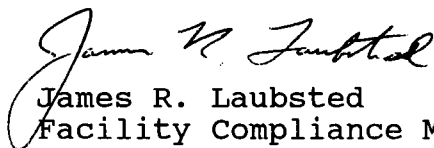
I contacted Juana Rojas by telephone on March 17th to notify the Agency as required.

There were no hazardous substances released at the CHSI facility due to or during this incident. This incident did not cause damage to the environment or human health. There were no injuries involved with this incident.

Regional Administrator  
March 19, 1998  
Page 2

If you have any further questions concerning this incident, please contact me at (773)646-6202.

Sincerely,

  
James R. Laubsted

Facility Compliance Manager



ENVIRONMENTAL SERVICES, INC.

11800 SOUTH STONY ISLAND AVENUE • CHICAGO, IL 60651  
(773) 646-5111 • FAX (773) 646-0026

RECEIVED

MAR 19 1998

Certified Mail # P475351656

March 13, 1998

Regional Administrator  
US Environmental Protection Agency  
77 West Jackson Boulevard  
Chicago, IL 60604-3590

DIVISION FRONT OFFICE  
Waste, Pesticides & Toxics Division  
U.S. EPA - REGION 5

Re: March 10, 1998  
Temporary fire suppression system shutdown  
24-Hour Report

Dear Sir:

In accordance with Standard Condition 14 of the RCRA Part B Permit Log B-16, Clean Harbors Services, Inc. (CHSI) is submitting this written report under the twenty-four hour reporting requirements for noncompliance with the permit which may endanger human health or the environment. CHSI is the operator of the facility at the above address. Specifically, the fire system for the old CWM portion of the facility was shut down. The details for the incident are provided below.

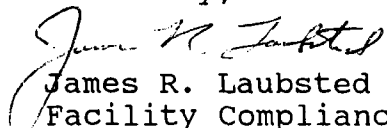
On the morning of March 9th, the facility lost partial electric power due to outages caused by a winter storm. The fire system for the old CWM portion of the facility has a battery back-up to keep the system operational in power outages. On March 9th the temperatures at the valve houses had dropped to near freezing conditions which would damage the system. At that time the system was turned off and the lines drained. There were no operations in affected areas when the incident occurred or when the system was not operational. Electricity was restored on March 12th and the fire system became operational, but the power was again cut-off and not restored until March 13th. The fire system is now fully operable.

I contacted Juana Rojas by telephone on March 11th to notify the Agency as required.

There were no hazardous substances released at the CHSI facility due to or during this incident. This incident did not cause damage to the environment or human health. There were no injuries involved with this incident.

If you have any further questions concerning this incident, please contact me at (773)646-6202.

Sincerely,

  
James R. Laubsted  
Facility Compliance Manager

"People and Technology Protecting and Restoring America's Environment"



# Clean Harbors<sup>®</sup>

SERVICES, INC.

11800 SOUTH STONY ISLAND AVENUE • CHICAGO, IL 60617  
(773) 646-6202 • FAX (773) 646-6381

PESTICIDES & TOXICS BRANCH  
Waste, Pesticides & Toxics Division  
U.S. EPA - REGION 5

Certified Mail # P612755326

October 13, 1997

Regional Administrator  
US Environmental Protection Agency  
77 West Jackson Boulevard  
Chicago, IL 60604-3590

RECEIVED  
OCT 28 1997

Re: October 11, 1997  
Temporary fire suppression system shutdown  
24-Hour Report

Dear Mr. Schollenberger:

In accordance with Standard Condition 14 of the RCRA Part B Permit Log B-16, Clean Harbors Services, Inc. (CHSI) is submitting this written report under the twenty-four hour reporting requirements for noncompliance with the permit which may endanger human health or the environment. CHSI is the operator of the facility at the above address. Specifically, the Chicago water lines which supply the fire system at the facility were shutdown. The details of this incident are provided below.

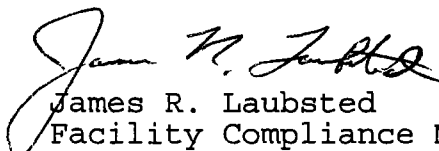
On the morning of October 11th, the City of Chicago shutdown the main water supply running down Stony Island Avenue to repair a fire hydrant near 122nd Street which was hit by a truck. This operation took approximately seven hours. At approximately 3:30 P.M., the fire system was at full operational status. During this time no operations took place on the old CWM portion of the site.

CHSI was notified by Chicago of the work the afternoon before. I contacted Juana Rojas by telephone on October 10th to notify the Agency as required.

There were no hazardous substances released at the CHSI facility due to or during this incident. This incident did not cause damage to the environment or human health. There were no injuries involved with this incident.

If you have any further questions concerning this incident, please contact me at (773) 646-6202.

Sincerely,

  
James R. Laubsted  
Facility Compliance Manager



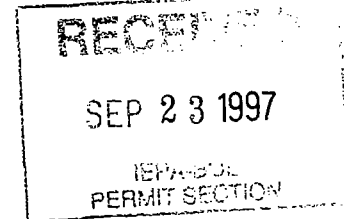
SERVICES, INC.

11800 SOUTH STONY ISLAND AVENUE • CHICAGO, IL 60617  
(773) 646-6202 • FAX (773) 646-6381

Certified Mail #P612755323

September 17, 1997

Mr. Mark A. Schollenberger, P. E.  
Illinois Environmental Protection Agency  
Bureau of Land - Permit Section  
2200 Churchill Road  
P.O. Box 19276  
Springfield, IL 62794-9276



Dear Mr. Schollenberger:

Clean Harbors Services, Inc. (CHSI) is submitting this written report to fulfill the incident reporting requirements of the Facility Contingency Plan and 35 IAC 724.156 for a fire which occurred at the facility on September 6, 1997. Clean Harbors is the operator of the facility at located at 11800 South Stony Island Avenue in Chicago, IL. The incident involved a fire in a roll-off container in which non-hazardous special waste was bulked. The fire occurred when the roll-off was in storage in Unit Q1.

On Saturday, September 6, 1997 employees bulked non-hazardous special wastes consisting of latex paints, consumer commodities (cosmetics), paint filters, resins, pharmaceuticals, lab-packed nonhazardous chemicals, detergents and debris (personal protective equipment) in the roll-off storage area used for bulking on the south side of the facility. After completion, the roll-off container was covered. At approximately 4:10 P.M. a fire in the roll-off was discovered. Personnel immediately summoned the Chicago Fire Department and utilized extinguishers to fight the fire. The fire department arrived at approximately 4:20 P.M. and doused the roll-off with approximately 500 gallons of water. The roll-off container was still hot and smoldering, so an additional 500 gallons of water was used on the roll-off. By 4:30 P.M., only steam was being emitted from the roll-off container. The fire department stood by approximately two hours more to assure the material did not reignite.

CHSI contacted the Illinois Emergency Management Agency to provide immediate notification as required by facility permits and was given incident number 971657. I later spoke with Jim O'Brien of IEPA to give further information on the incident. I met Jim Clark of the IEPA's Maywood office at

Mr. Mark A Schollenberger, P.E.  
September 17, 1997  
Page 2

the CHSI facility that evening. We surveyed the roll-off container visually inspecting the waste in the roll-off to find any ignition initiator which might be present. No initiators were found. The roll-off container was still fairly warm but no emissions were present at the time. Mr. Clark agreed with CHSI's plan to leave the roll-off in place and have a 24-hour watch on the roll-off. Mr. Richard J. Schleyer of the City of Chicago Department of Environment was also present at the facility. At 9 A.M. on Monday September 8, 1997, I contacted you by phone at the Agency's Springfield office to provide notification during normal working hours.

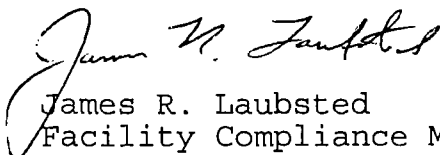
During the fire, the wind was from the south at approximately 10 to 15 miles per hour. Emissions rapidly dissipated in the wind which carried them over CHSI property for approximately 1200 feet from the roll-off container. The area north of the facility is unoccupied, open land for one mile. There were no injuries associated with this incident. No material was released from the roll-off. The roll-off container of twenty cubic yards was shipped off-site to a non-hazardous waste to energy recovery facility on September 10th.

There were no differences between the emergency response activities actually taken and those prescribed in the contingency plan. IEMA was notified all emergency equipment listed in the contingency plan was clean and fit for its intended use prior to resumption of operations.

CHSI has investigated this incident and the materials involved. The materials were identified through tracking reports, manifests, waste profiles, packing slips and visual inspection. It is believed the the paint filters (metal flake paint) could have initiated the fire. The facility will no longer consolidate these filters into roll-off containers. No other materials appeared capable of initiating a fire.

If you have any further questions concerning this incident, please contact me at (773)646-6202.

Sincerely,



James R. Laubsted  
Facility Compliance Manager



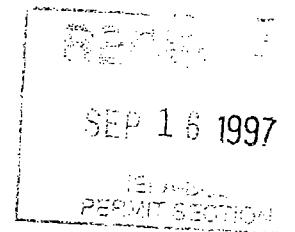
ENVIRONMENTAL SERVICES, INC.

11800 SOUTH STONY ISLAND AVENUE • CHICAGO, IL 60617

(312) 646-6202 • FAX (312) 646-6381

Certified Mail #P612755321

September 10, 1997



Mr. Mark A. Schollenberger, P.E.  
Illinois Environmental Protection Agency  
Bureau of Land - Permit Section  
2200 Churchill Road  
P.O. Box 19276  
Springfield, IL 62794-9276

Dear Mr. Schollenberger:

In accordance with Standard Condition VI.19 of the RCRA Part B Permit Log B-16, Clean Harbors Services, Inc. (CHSI) is submitting this written report under the twenty-four hour reporting requirements for noncompliance with the permit, regulations or Act which may endanger human health or the environment. Clean Harbors is the operator of the facility at the above address. The incident involved a fire in a roll-off container in which non-hazardous special waste was bulked. The fire occurred when the roll-off was in storage in Unit Q1.

On Saturday, September 6, 1997 employees bulked non-hazardous special wastes consisting of latex paints, consumer commodities (cosmetics), paint filters, resins, pharmaceuticals, lab-packed nonhazardous chemicals, detergents and debris (personal protective equipment) in the roll-off storage area used for bulking on the south side of the facility. After completion, the roll-off container was covered. At approximately 4:10 P.M. a fire in the roll-off was discovered. Personnel immediately summoned the Chicago Fire Department and utilized extinguishers to fight the fire. The fire department arrived at approximately 4:20 P.M. and doused the roll-off with approximately 500 gallons of water. The roll-off container was still hot and smoldering, so an additional 500 gallons of water was used on the roll-off. By 4:30 P.M., only steam was being emitted from the roll-off container. The fire department stood by approximately two hours more to assure the material did not reignite.

CHSI contacted the Illinois Emergency Management Agency to provide immediate notification as required by facility permits and was given incident number 971657. I later spoke with Jim O'Brien of IEPA to give further information on the incident. I met Jim Clark of the Agency's Maywood office at

Mr. Mark A. Schollenberger, P.E.  
September 10, 1997  
Page 2

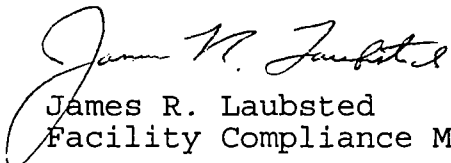
the CHSI facility that evening. We surveyed the roll-off container visually inspecting the waste in the roll-off to find any ignition initiator which might be present. No initiators were found. The roll-off container was still fairly warm but no emissions were present at the time. Mr. Clark agreed with CHSI's plan to leave the roll-off in place and have a 24-hour watch on the roll-off. Mr. Richard J. Schleyer of the City of Chicago Department of Environment was also present at the facility. At 9 A.M. on Monday September 8, 1997, I called you at the Agency's Springfield office to provide notification during normal working hours.

During the fire, the wind was from the south at approximately 10 to 15 miles per hour. Emissions rapidly dissipated in the wind which carried them over CHSI property for approximately 1200 feet from the roll-off container. The area north of the facility is unoccupied, open land for one mile. There were no injuries associated with this incident. The roll-off container of twenty cubic yards was shipped off-site to a non-hazardous waste to energy recovery facility today.

CHSI has investigated this incident and the materials involved. The materials were identified through tracking reports, manifests, waste profiles, packing slips and visual inspection. It is believed the the paint filters (metal flake paint) could have initiated the fire. The facility will no longer consolidate these filters into roll-off containers. No other materials appeared capable of initiating a fire.

If you have any further questions concerning this incident, please contact me at (773)646-6202.

Sincerely,

  
James R. Laubsted  
Facility Compliance Manager

ILD000608471



ENVIRONMENTAL SERVICES, INC.

11800 SOUTH STONY ISLAND AVENUE • CHICAGO, IL 60617  
(312) 646-6202 • FAX (312) 646-6381

RECEIVED

SEP 09 1997

Certified Mail # P612755339

September 3, 1997

DIVISION FRONT OFFICE  
Waste, Pesticides & Toxics Division  
U.S. EPA - REGION 5

Regional Administrator  
US Environmental Protection Agency  
77 West Jackson Boulevard  
Chicago, IL 60604-3590

Re: September 2, 1997  
Temporary Building 43 fire suppression system shutdown  
24-Hour Report

Dear Sir:

In accordance with Standard Condition 14 of the RCRA Part B Permit Log B-16, Clean Harbors Services, Inc. (Clean Harbors) is submitting this written report under the twenty-four hour reporting requirements for noncompliance with the permit which may endanger human health or the environment. Clean Harbors is the operator of the facility at the above address. Specifically, a portion of the fire system which included Building 43 of the facility was shut down. The details of this incident are provided below.

On the morning of September 2nd, an operator hit a pull station while moving an airline hose. This caused the fire system to activate and charged foam into the sprinkler system in Building 43. Because there was no fire, none of the sprinkler heads were open. The foam only filled the piping in Building 43. On September 2nd the portion of the system covering Building 43 was shut down to empty the foam from the piping and check the system. This operation took approximately twenty minutes. During this time no operations took place in Building 43. An employee was available to manually start this portion of the system during the operation.

I contacted Juana Rojas by telephone on September 3rd to notify the Agency as required.

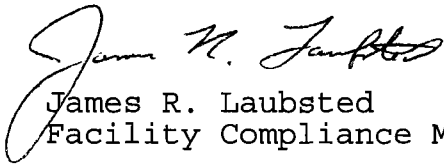
Regional Administrator  
September 3, 1997  
Page 2

There were no hazardous substances released at the CHSI facility due to or during this incident. This incident did not cause damage to the environment or human health. There were no injuries involved with this incident.

CHSI is considering changing the pull station from plastic to metal to increase the integrity of the pull station.

If you have any further questions concerning this incident, please contact me at (773)646-6202.

Sincerely,



James R. Laubsted  
Facility Compliance Manager



State of Illinois

# ENVIRONMENTAL PROTECTION AGENCY

J.R.

Mary A. Gade, Director

2200 Churchill Road, Springfield, IL 62794-9276

217/524-3300

August 6, 1997

CERTIFIED MAIL  
P 344 345 882

Mr. Joseph A. Kotlinski  
Clean Harbors Environmental Services, Inc.  
1501 Washington Street  
P.O. Box 850327  
Braintree, Massachusetts 02185-0327

Re: 0316000051 -- Cook County  
Clean Harbors Services, Inc.  
ILD000608471  
Dates Received: July 1, 1997  
Log No. B-16  
RCRA Permit

Dear Mr. Kotlinski:

This letter is in response to your June 30, 1997 submittal regarding certain construction and corrective action activities being carried out at the above-referenced RCRA permitted facility. Specifically, your submittal dealt with construction of the Truck Unloading Dock (Unit V) over a portion of the Former Oil Basin (a solid waste management unit which is being investigated under the corrective action provisions of the facility's RCRA permit). The locations of the Truck Loading Dock and Former Oil Basin are shown on Attachment 2 of the subject submittal. Construction of the Truck Loading Dock was approved in Section I.B of the RCRA permit issued to the above-referenced facility (Log No. B-16).

Construction of the subject Truck Unloading Dock (Unit V) may proceed, provided the following conditions and modifications are met:

1. The construction of this unit shall be carried out in accordance with the requirements of the subject facility's RCRA permit.
2. The requirements of Condition I.K of the RCRA permit must be met in completing construction of the Truck Unloading Dock. In accordance with Condition I.K.1.a of the RCRA permit, a Construction Certification Report demonstrating that the construction of the Truck Loading Area meets the requirements of 35 Ill. Adm. Code 724.275(b) must be submitted to the Illinois EPA within thirty days after completing construction and prior to any containers of waste being managed at the unit. In addition to information required in Attachment C to the RCRA permit, this report should include:

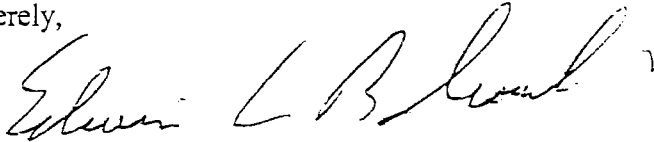


- a. A scaled drawing showing the horizontal and vertical extent of excavation(s) associated with the construction of the Truck Loading Area with respect to the location of the Former Oil Basin and facility boundaries or relevant structures at the site;
  - b. An estimate of the total volume of materials excavated;
  - c. A waste characterization of the excavated material which identifies whether the material is hazardous or not. Copies of relevant chemical/physical analytical reports should be included to substantiate this determination; and
  - d. Copies of waste manifests documenting treatment, storage or disposal of this material off-site.
2. The approved construction activities shall be limited to the area west of a line connecting soil boring locations B-140 and B-142 within the Former Oil Basin. No construction activities should take place east of this line.
3. All wastes generated and/or derived from the subject construction activities at the site are subject to regulation as special wastes. Clean Harbors must collect these wastes for adequate characterization to determine if these wastes are listed or characteristically hazardous wastes, including a determination of whether these wastes are "derived-from" hazardous wastes. If it is determined that these wastes are indeed hazardous, they must be managed in accordance with the applicable requirements of 35 Ill. Adm. Code Subtitle G. If these wastes are determined to be non-hazardous, they must be managed as special waste in accordance with 35 Ill. Adm. Code Subtitle G.
4. Authorization for the construction of the Truck Loading Dock is dependent, in part, on the fact that the Former Oil Basin may be subject to additional investigation and possible corrective measures under Section V, Corrective Action, of the RCRA permit. This is consistent with Illinois EPA approvals given for already completed or proposed construction and closure activities at the subject facility.
5. Under the provisions of 29 CFR 1910 (51 FR 15,645, December 19, 1986), cleanup operations must meet the applicable requirements of OSHA's Hazardous Waste Operations and Emergency Response standard. These requirements include hazard communication, medical surveillance, health and safety programs, air monitoring, decontamination, and training. General site workers engaged in activities that expose or potentially expose them to hazardous substances must receive a minimum of 40 hours of safety and health training off site plus a minimum of three days of actual field experience under the supervision of a trained experienced supervisor. Site managers and supervisors must have at least an additional eight hours of specialized training on managing hazardous waste operations.

Mr. Joseph Kotlinski  
Log No. B-16 (Received July 1, 1997)  
Page 3

Should you have any questions regarding this matter, please contact Jim Moore at 217/524-3300.

Sincerely,

A handwritten signature in cursive script, appearing to read "Edwin C. Bakowski".

Edwin C. Bakowski, P.E.  
Manager, Permit Section  
Bureau of Land

ECB:TFF:bjh\971632.WPD  
*Jim*

cc: USEPA Region V - Hak Cho



ENVIRONMENTAL SERVICES, INC.

11800 SOUTH STONY ISLAND AVENUE • CHICAGO, IL 60617  
(312) 646-6202 • FAX (312) 646-6381

Thom US  
ICD 000608 47,

May 19, 1997

Mr. Mark A. Schollenberger, P.E.  
Illinois Environmental Protection Agency  
Bureau of Land - Permit Section  
2200 Churchill Road  
P.O. Box 19276  
Springfield, IL 62794-9276

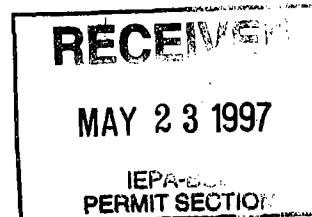
Dear Mr. Schollenberger:

Clean Harbors Services, Inc. (CHSI) is submitting a certified copy of the public notice published in the May 9, 1997 edition of the Daily Southtown Inc. announcing the public comment period and the public meeting held in conjunction with the Class 2 permit modification to construct and operate an additional pumping station to Unit 61.

If you have further questions or require any further information, please contact me at (773) 646-6202.

Sincerely,

James R. Laubsted  
Facility Compliance Manager



LEGAL NOTICE

Notice is hereby given to all interested persons that Clean Harbor Services, Inc. (CHSI), a wholly-owned subsidiary of Clean Harbors, Inc. and a permitted hazardous waste treatment, storage, and disposal (TSD) facility located at 11800 South Stony Island Avenue in Chicago, has filed a Class 2 Permit Modification with the Illinois Environmental Protection Agency (IEPA) for authorization to add a pumping station to unit 61. CHSI currently operates under a RCRA Part B permit issued by the IEPA on September 30, 1993.

Pursuant to 35 IAC 703.282(b), CHSI announces a 60 day comment period beginning May 12, 1997 during which all interested parties have the opportunity to review the modification request and to submit written comments to the IEPA. CHSI will hold an informational public meeting open to all interested persons to discuss the proposed modification. The meeting will be held on Tuesday, June 10, 1997 from 7:00-9:00 p.m. at Olive-Harvey College, 10001 S. Woodlawn Avenue, Chicago, IL.

Copies of the modification request are available for review during normal business hours at CHSI's business office at 11800 S. Stony Island Avenue, Chicago, IL., Olive-Harvey College at 10001 S. Woodlawn Ave., Chicago, IL. or at the IEPA's office in Springfield, IL. A copy of CHSI's compliance history during the life of its existing permit is available from IEPA. Additional information on the modification requests is available by contacting Mr. James R. Laubsted at CHSI, 11800 S. Stony Island Ave., Chicago, IL. 60617, or at (773)646-6202. Information regarding application viewing time and place, CHSI's existing permit, applicable regulatory requirements, permit modification procedures, and CHSI's compliance history may be obtained from Mara McGinnis, IEPA, 2200 Churchill Rd., Springfield, IL. 62794-9276 or at (217)524-3300.

CERTIFICATE  
DAILY SOUTHTOWN

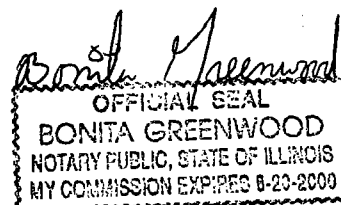
does hereby certify that it is the publisher of the DAILY SOUTHTOWN INC., that said DAILY SOUTHTOWN INC. NEWSPAPER is a secular newspaper and has been published daily in the City of Chicago, County of Cook and State of Illinois, continuously for more than one year prior to the first publication of the notice appended, and is of general circulation throughout the said County and State and that it is a newspaper as defined in "An Act to Revise The Law in Relation To Notices". As amended by an Act approved July 17, 1959 - Illinois Revised Statutes, Chapter 100 Paragraph 1 and 5.

That the notice appended was published in the DAILY SOUTHTOWN INC. NEWSPAPERS on:  
May 9, 1997.

IN WITNESS WHEREOF, The DAILY SOUTHTOWN INC. has caused this certificate to be signed and its corporate seal affixed hereto at Chicago, IL this 13<sup>th</sup> day of May, 1997, AD.

By: L.L. Counsel  
Assistant Legal  
Advertising Manager

County of Cook  
State of Illinois  
Subscribed and sworn to  
before me this 13<sup>th</sup> day  
of May, 1997.





11800 SOUTH STONY ISLAND AVENUE • CHICAGO, IL 60617  
(312) 646-6202 • FAX (312) 646-6381

RECEIVED

by J. Rojo  
on 5-01-97

Certified Mail # P612755301

April 23, 1997

Regional Administrator  
US Environmental Protection Agency  
77 West Jackson Boulevard  
Chicago, IL 60604-3590

Re: April 22, 1997  
Temporary Building 61 fire suppression system shutdown  
24-hour report

Dear Sir:

In accordance with Standard Condition 14 of the RCRA Part B Permit Log B-16, Clean Harbors Services, Inc. (Clean Harbors) is submitting this written report under the twenty-four hour reporting requirements for noncompliance with the permit which may endanger human health or the environment. Clean Harbors is the operator of the facility at the above address. Specifically, a portion of the fire system which included Building 61 of the facility was shut down. The details of this incident are provided below.

On the evening of April 21st, an operator hit a pull station while moving equipment. This caused the fire system to activate and charged foam into the sprinkler system in Building 61. Because there was no fire, none of the sprinkler heads were open. The foam only filled the piping in Building 61. On April 22nd, an outside contractor was called in to check the system. At that time the portion of the system covering Building 61 was shut down to empty the foam from the piping and check the system. This operation took approximately two hours. During this time no operations took place in Building 61. An employee was available to manually start this portion of the system during the operation.

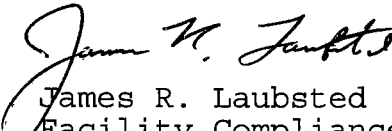
I contacted Juana Rojos by telephone on April 22nd to notify the Agency as required.

Regional Administrator  
April 23, 1997

There were no hazardous substances released at the CHSI facility due to or during this incident. This incident did not cause damage to the environment or human health. There were no injuries involved with this incident.

If you have any further questions concerning this incident, please contact me at (773)646-6202.

Sincerely,

A handwritten signature in cursive script, appearing to read "James R. Laubsted".

James R. Laubsted  
Facility Compliance Manager

cc: Maywood  
USEPA

Jacma TJD  
MAS

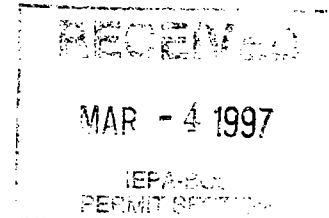
# Clean Harbors<sup>®</sup>

SERVICES, INC.

11800 SOUTH STONY ISLAND AVENUE • CHICAGO, IL 60617  
(312) 646-6202 • FAX (312) 646-6381

February 27, 1997

Mr. Mark A. Schollenberger, P.E.  
Illinois Environmental Protection Agency  
Bureau of Land - Permit Section  
2200 Churchill Road  
P.O. Box 19276  
Springfield, IL 62794-9276



Re: February 23, 1997  
Temporary fire suppression system shutdown  
24-hour report

Dear Sir:

In accordance with Standard Condition VI.19 of the RCRA Part B Permit Log B-16, Clean Harbors Services, Inc. (Clean Harbors) is submitting this written report under the twenty-four hour reporting requirements for noncompliance with the permit which may endanger human health or the environment. Clean Harbors is the operator of the facility at the above address. Specifically, the fire system for the old CWM portion of the facility was shut down. The details of this incident are provided below.

A railcar accident occurred February 22 outside the facility knocking several railcars containing benzene off the tracks spilling part of the contents. Due to the flammable vapors, electricity and natural gas were shut off to facilities in the area. The fire system for the facility has a battery back-up to keep the system operational in power outages. On February 23rd the temperatures at the valve houses had dropped to near freezing conditions which would damage the system. At that time the system was turned off and the lines drained. There were no operations in affected areas when the incident occurred or when the system was not operational. Electricity was restored on February 25th and the fire system became operational.

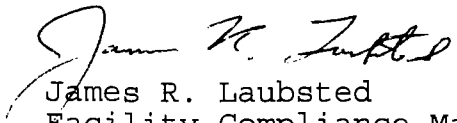
I contacted the Illinois Emergency Management Agency on February 23rd and yourself by telephone on February 24th.

There were no hazardous substances released at the CHSI facility due to or during this incident. This incident did not cause damage to the environment or human health. There were no injuries involved with this incident.

Mr. Mark A. Schollenberger, P.E.  
February 27, 1997  
Page 2

If you have any further questions concerning this incident, please contact me at (773)646-6202.

Sincerely,

A handwritten signature in cursive script, appearing to read "James R. Laubsted".

James R. Laubsted  
Facility Compliance Manager





ENVIRONMENTAL SERVICES, INC.

1501 WASHINGTON STREET, PO BOX 850327 • BRAINTREE, MA 02185-0327  
(617) 849-1800

WRITER'S DIRECT NUMBER

Extension 4182

LAW DEPARTMENT

(617) 849-1800

FAX (617) 356-1375

December 4, 1996

Illinois Environmental Protection Agency  
Attn: Edwin C. Bakowski, Manager  
Permit Section, Bureau of Land  
2200 Churchill Road  
Springfield, Illinois 62794-9276

Re: 0316000051 - Cook County  
Clean Harbors Services, Inc.  
(Formerly Clean Harbors of Chicago, Inc.)  
ILD000608471  
Log No. 16  
RCRA Permit

DEC - 4 1996

Dear Mr. Bakowski:

Clean Harbors Services, Inc. and its consultant, Carlson Environmental, Inc. (CEI) have reviewed the Agency's draft approval letter for the RFI Phase II/III Workplan. The basic draft was provided to us in September, and the groundwater portion was provided to us in mid- October. Clean Harbors hereby responds to the draft approval letter as follows.

Reference and First Paragraph:

Please note that subsequent to submittal of the RFI Phase II/III Workplan, Clean Harbors of Chicago, Inc. changed its name to Clean Harbors Services, Inc. and previously notified the Agency of such. The letter should be revised to reflect this change in the Reference, the first paragraph and all page headers.



Illinois Environmental Protection Agency  
December 4, 1996  
Page 2 of 4

Condition/Modification 1:

Clean Harbors agrees with this condition/modification.

Condition/Modification 2:

Clean Harbors agrees with this condition/modification, subject to the following revisions:

- o It is assumed that the June 1, 1997 date in the first sentence of the 1st paragraph refers to field activities. It is therefore requested that the word "field" be inserted before the 4th word in the sentence, "activities".
- o In the 5th paragraph, both in the 1st and 2nd lines, change "RFI Phase I" to "RFI Phase II/III".
- o In Item "b." under the 5th paragraph, change "Condition ###" to read "Condition 10".
- o With respect to Item "d." under the 5th paragraph, it is unclear whether "all costs associated with the RFI to date" include both RFI Phase I and Phase II/III or just the latter. Furthermore, Clean Harbors questions why the RFI Report needs to "include all costs associated with the RFI to date" and requests that this requirement be deleted as a condition. Clean Harbors has never encountered this requirement in the RFI Phase I Report submitted to the Agency or in any corrective action report in any other state or federal jurisdiction. Clean Harbors will furnish the requested information to the Agency upon request, but does not believe that it should be part of the formal RFI Phase II/III Report.

Condition/Modification 3:

Clean Harbors agrees with this condition/modification.

Condition/Modification 4:

Clean Harbors agrees with this condition/modification. However, in some cases, CEI may opt to analyze some samples using TCLP analysis in addition to the required Total analysis.



Illinois Environmental Protection Agency  
December 4, 1996  
Page 3 of 4

Condition/Modification 5:

Clean Harbors agrees with this condition/modification.

Condition/Modification 6:

Clean Harbors agrees with this condition/modification.

Condition/Modification 7:

Clean Harbors agrees with this condition/modification.

Condition/Modification 8:

Clean Harbors agrees with this condition/modification. However, it is noted that the Tiered Approach to Cleanup Objectives (TACO) is now referred to as Tiered Approach to Corrective Action Objectives (TACAO). The Agency should revise the language to reflect the current designation.

Condition/Modification 9:

Previous investigations of the Chlorobenzene Contaminated Area (SWMU No. 7) were conducted by the Samsel Services Company in 1986 and 1987 for a previous site operator. However, specific information regarding the results of previous investigations is limited. Whatever information is available will be summarized and incorporated into the RFI Phase II/III Report. We note that the RFI Phase II/III field activities are intended to determine the potential extent of soil contamination identified at the Site, including SWMU No. 7.

With respect to the four information items which the condition requires the report to include, we respond as follows:

- a. The information is available and will be included in the RFI Phase II/III Report.
- b. The information is available and will be included in the RFI Phase II/III Report.
- c. Information regarding the exact locations of soil borings advanced at the site in 1987 is not available. We request that this requirement be deleted.



Illinois Environmental Protection Agency  
December 4, 1996  
Page 4 of 4.

- d. A general description of the procedures used to collect and analyze soil samples can be provided. However, a detailed discussion of analytical and sample preparation and procedures and quality control procedures used during the historic investigations is not available and cannot be provided.

Condition/Modification 10:

Clean Harbors agrees with this condition/modification.

Condition/Modification 11:

Clean Harbors agrees with this condition/modification.

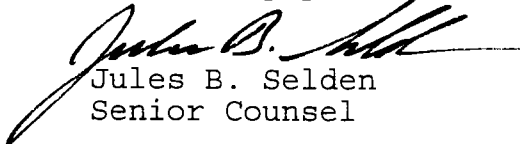
Condition/Modification 12:

Clean Harbors agrees with this condition/modification.

Condition/Modification 13:

Clean Harbors agrees with this condition/modification. However, the Agency needs to revise the dates cited in the last paragraph so they are consistent with the actual date of the final approval letter.

Very truly yours,

  
Jules B. Selden  
Senior Counsel

cc: Carlson Environmental, Inc. (enc)  
James R. Laubsted (enc)



ENVIRONMENTAL SERVICES, INC.

11800 SOUTH STONY ISLAND AVENUE • CHICAGO, ILLINOIS 60617  
(312) 646-6202 • FAX (312) 646-6381

Certified Mail #Z781269729

June 11, 1996

Regional Administrator  
U.S. Environmental Protection Agency  
77 West Jackson Boulevard  
Chicago, IL 60604-3590

Re: June 11, 1996  
Temporary fire suppression system shutdown  
24-hour report

Dear Sir:

In accordance with Standard Condition 14 of the RCRA Part B Permit Log B-16, Clean Harbors of Chicago, Inc. (Clean Harbors) is submitting this written report under the twenty-four hour reporting requirements for noncompliance with the permit which may endanger human health or the environment. Clean Harbors is the operator of the facility at the above address. Specifically, the fire system for the East Flammable Tankfarm was shutdown to move an electrical conduit. The details of this incident are provided below.

Clean Harbors performed a scheduled maintenance activity involving movement of an electrical conduit which contained wires which activate heat sensors for the East Flammable Tankfarm fire suppression system. This portion of the system was deactivated so the conduit could be moved. An employee was available to manually start this portion of the system during the maintenance activity. The fire system for the East Flammable Tankfarm was shutdown from approximately 10:10 A.M. to 3:00 P.M. on June 11th. Operations in affected areas were stopped on at 10:00 A.M. on June 11th and did not begin until the system was operational.

I contacted Todd Gmitro at the Agency's Chicago office by telephone on June 11th.

There were no hazardous substances released due to or during the incident. The incident did not cause damage to the environment or human health. There were no injuries involved with the incident.

RECEIVED

JUN 13 1996

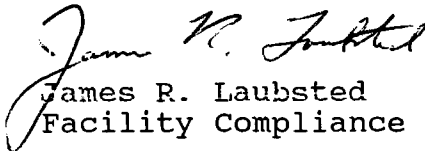
U.S. EPA REGION 5  
OFFICE OF REGIONAL ADMINISTRATOR



Regional Administrator  
June 11, 1996  
Page Two

If you have any further questions concerning this incident, please contact me at (312)646-6202.

Sincerely,

  
James R. Laubsted  
Facility Compliance Manager



11800 SOUTH STONY ISLAND AVENUE • CHICAGO, ILLINOIS 60617  
(312) 646-6202 • FAX (312) 646-6381

Certified Mail #Z781269557

May 9, 1996

Regional Administrator  
US Environmental Protection Agency  
Region V  
230 Dearborn Street  
Chicago, IL 60604

Re: May 7, 1996  
Temporary fire suppression system shutdown  
24-hour report

Dear Sir:

In accordance with Standard Condition VI.19 of the RCRA Part B Permit Log B-16, Clean Harbors of Chicago, Inc. (Clean Harbors) is submitting this written report under the twenty-four hour reporting requirements for noncompliance with the permit which may endanger human health or the environment. Clean Harbors is the operator of the facility at the above address. Specifically, the fire system for Building 43 was shutdown due to an electrical problem. The details of this incident are provided below.

On May 7, 1996 an alarm indicated that the foam pump for the sprinkler system in Building 43 was operating. An employee checking the situation found the pump running and the line pressurized. He found no evidence of fire or heat in Building 43. After shutting off the pump, the fire protection contractor who installed the system was called. The contractor checked all sprinkler heads and heat detection monitors. No sprinkler head had activated and the heat detection monitors were in the correct position. The contractor indicated that electricity to the line compressor had been interrupted preventing the compressor from repressurizing the line to compensate for small losses of air. As the pressure in the line decreased, the fire suppression system energized as if a sprinkler head activated. After the system was pressurized with air and the compressor checked for operation, the system was placed on-line.

The fire system for Building 43 was shutdown from approximately 4:40 P.M. on May 7th to 2:00 P.M. on May 8th. Operations in affected areas were stopped on at 2:00 P.M. on

Regional Administrator

May 9, 1996

Page 2

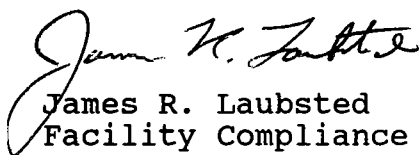
May 7th and did not begin until May 9th when the system was operational.

I contacted Juana Rojo at the Agency on May 8th.

There were no hazardous substances released due to or during the incident. The incident did not cause damage to the environment or human health. There were no injuries involved with the incident.

If you have any further questions concerning this incident, please contact me at (312)646-6202.

Sincerely,



James R. Laubsted  
Facility Compliance Manager





State of Illinois

# ENVIRONMENTAL PROTECTION AGENCY

USEPA  
TSCA

Mary A. Gade, Director

2200 Churchill Road, Springfield, IL 62794-9276

217-524-3300

March 28, 1996

Mr. Paul A. Ahearn  
Manager, Regulatory Compliance  
Clean Harbors Environmental Services, Inc.  
1200 Crown Colony Drive  
P.O. Box 9137  
Quincy, MA 02269-9137

Re: 0316000051 -- Cook County  
Clean Harbors of Chicago, Inc.  
Log No. B-16-M-2  
RCRA Permit File

Dear Mr. Ahearn:

This letter is in response to the Hoyer-Schlesinger-Turner (HST) letter dated February 19, 1996 that was submitted in response to Condition G.14 in Attachment D of CHCI's RCRA permit (Log No. B-16-M-2). Condition G.14 required the permittee to obtain the appropriate approvals/reviews from the City of Chicago for the Fire Suppression Drawings and Specifications and provide verification of these approvals/reviews to the Agency prior to operation of the system.

Your submittal indicates that Clean Harbors of Chicago Inc. received approval from the City of Chicago for the construction and operation of the fire suppression system. The submittal includes a copy of the City of Chicago Fire Department's stamp that indicates that the fire suppression system was reviewed by the City, a copy of City of Chicago Fire Department's building permit No. 24917, and a copy of the fire pump performance test that indicates that a representative from the Chicago Fire Department witnessed the test.

The Agency has reviewed the HST submittal and determined that it meets the requirements of Condition G.14 of Attachment D of CHCI's RCRA permit (Log No. B-16-M-2).

Page 2

If you have any questions regarding this letter, please feel free to call Rob Watson, P.E. at 217/524-3265.

Sincerely,



Edwin C. Bakowski, P.E.  
Manager Permit Section,  
Bureau of Land

ECB:WRW:<sup>TSP</sup>bjh\962801.WPD

cc: Matt Dunn, IAG  
Hak Cho, USEPA - Region V  
Tony Martig, USEPA - Region V, TSCA  
Jim Laubsted, CHCI



ENVIRONMENTAL SERVICES, INC.

11800 SOUTH STONY ISLAND AVENUE • CHICAGO, ILLINOIS 60617

(312) 646-6202 • FAX (312) 646-6381

Certified Mail #2781269745

March 8, 1996

Mr. Mark Schollenberger, P.E.  
Illinois Environmental Protection Agency  
Bureau of Land - Permit Section  
2200 Churchill Road  
P.O. Box 19276  
Springfield, IL 62794-9276

Re: March 4, 1996  
24-Hour Report

RECEIVED

MAR 11 1996

IEPA-BOL  
PERMIT SECTION

Dear Mr. Schollenberger:

In accordance with Standard Condition VI.19 of the RCRA Part B Permit Log B-16, Clean Harbors of Chicago, Inc. (Clean Harbors) is submitting this written report under the twenty-four hour reporting requirements for noncompliance with the permit which may endanger human health or the environment. Clean Harbors is the operator of the facility at the above address.

On March 4, 1996 an alarm indicated that the fire pump in the west pump house was operating. An employee checking the situation found the pump running, but sufficient pressure in the line. After shutting off the pump, he tried to turn on the jockey pump. The pump did not go on. The jockey pump is a small pump connected in line with the fire pump. Its purpose is to provide make-up pressure for minor pressure fluctuations in the line. The fire pump came on because the jockey pump did not go on with a pressure fluctuation. An employee investigating found a bad fuse in a main supply panel. After the fuse was replaced, the system was placed on-line.

The system was shutdown from approximately 4:00 P.M. to 5:00 P.M. Operations in affected areas had ceased for the day prior to the incident.

Tod Dykton contacted Aaron Taylor at IEPA's Maywood office by phone. He also left a voice-mail on your phone.

There were no hazardous substances released due to or during the incident. The incident did not cause damage to the environment or human health. There were no injuries involved

Mr. Mark Schollenberger, P.E.  
March 8, 1996  
Page 2

with the incident.

If you have any further questions concerning this incident, please contact me at (312)646-6202.

Sincerely,

*James R. Laubsted*

James R. Laubsted  
Facility Compliance Manager



State of Illinois  
**ENVIRONMENTAL PROTECTION AGENCY**

Mary A. Gade, Director

2200 Churchill Road, Springfield, IL 62794-9276

217-524-3300

February 28, 1996

Mr. Paul A. Ahearn  
Manager, Regulatory Compliance  
Clean Harbors Environmental Services, Inc.  
1200 Crown Colony Drive  
P.O. Box 9137  
Quincy, Massachusetts 02269-9137

Re: 0316000051 -- Cook County  
Clean Harbors of Chicago, Inc.  
Log Nos. B-16-M-6, 8, & 10  
RCRA Permit File

Dear Mr. Ahearn:

The Agency has reviewed your requests to modify your Part B permit as identified in the log numbers B-16-M-6, B-16-M-8, and B-16-M-10. The requested changes listed below have been approved:

**1. B-16-M-6:**

This modification request was dated September 1, 1995 and received on September 5, 1995. It was submitted in response to condition I.E.8 on pages I-7 and I-8 of the RCRA permit. The subject of this modification was a revised Contingency Plan that included emergency procedures for handling releases of compressed gases. The wording in the RCRA permit was not modified as a result of this modification.

**2. B-16-M-8:**

This modification request was dated October 3, 1995 and received on October 5, 1995. It was submitted in response to condition III.C.1 on page III-2 of the RCRA permit. The subject of this modification was provide corrections and additional information to the Well Location and Construction Table in condition III.C.1 of the RCRA permit. The wording of condition III.C.1 on page III-2 of the RCRA permit was modified as a result of this modification.

**3. B-16-M-10:**

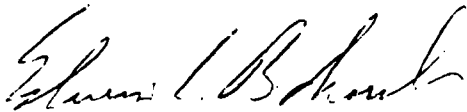
This modification request was dated October 26, 1995 and received November 6, 1995. It was submitted in response to a request from the Agency. The subject of this modification was to include additional inspection and testing procedures for the fire protection system in

CHCI's Inspection Plan. The wording in Attachment B of the RCRA permit was modified as a result of this modification.

The Agency has reviewed the information contained in your submittals and has determined that Clean Harbors of Chicago, Inc. (CHCI) may implement these modifications. This determination is based upon our review of (1) the RCRA Part B Permit issued to CHCI, (2) the regulations [35 Ill. Adm. Code Subtitle G] and (3) the information contained in your submittals. Operations must be conducted in accordance with the approved RCRA Part B Permit originally issued to CHCI and all subsequent modifications to the Part B Permit. A copy of the modified permit is attached.

If you have any additional questions in this matter, please contact Rob Watson, P.E. of my staff at 217/524-3265.

Sincerely,



Edwin C. Bakowski, P.E.  
Manager, Permit Section  
Bureau of Land

ECB:WRW\mls\963263S.WPD

JK

cc: Matt Dunn, IAG  
Hak Cho, USEPA - Region V  
Tony Martig, USEPA - Region V, TSCA  
Jim Laubsted, CHCI

B-16-1A-2

cc: M. Wood  
USEPA

JHK  
WPL

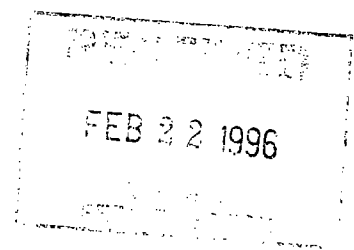


HOYER-SCHLESINGER-TURNER inc.

ENGINEERS - CONSTRUCTORS

300 west adams street chicago illinois 60606 telephone 263-0556 area code 312

February 19, 1996



Mr. Robert Watson, PE  
Illinois Environmental Protection Agency  
Div. Land Pollution Control -- #24  
2200 Churchill Road  
Permit Section  
Springfield, Illinois 62794-9276

Dear Mr. Watson:

Clean Harbors of Chicago (CHCI) received your letter of February 1, 1996 indicating that CHCI has not demonstrated compliance with Condition G.14 in Attachment D of the RCRA permit. Condition G.14 requires CHCI to provide the Agency verification that they had obtained any necessary approvals/reviews of the fire suppression system by the City of Chicago prior to operation of the system.

Clean Harbors of Chicago (CHCI) approached the City of Chicago Fire Department (CCFD) on numerous occasions during the summer of 1995 for a review of the Fire Protection drawings prepared for CHCI plant at 11700 S. Stony Avenue, Chicago, IL 60617. Meetings with CCFD were held on June 23rd, June 28th and July 6th of 1995. During this period, minor changes were requested by CCFD and they were incorporated into the drawings. The Fire Protection drawings FP1 thru FP12, FP1-E thru FP3-E and SK-1 as originally prepared by Grinnell Corp. and drawings 1 of 21 thru 21 of 21 as prepared by Reliable Corp. were signed on July 13, 1995 by Mr. Rick Miranda, CCFD engineer, tel. 312/744-1876 under Permit No. 24917, copy enclosed.

The meetings were held at CCFD premises at 444 N Dearborn, Chicago, IL 60610-4667. Present were usually Mr. Edward J. Prendergast, PE, Chief Fire Prevention Engineer and Mr. Rick Miranda for CCFD, Mr. Paul Whiting and Mr. Alan F. Mount for Clean Harbors of Chicago and consultants for CHCI Mr. Gerald R. Schultz, PE of Gage-Babcock Assoc., tel. 708/368-0660 and Ms. Marie Vanagas, PE of Hoyer-Schlesinger-Turner, tel. 312/263-0556.

The CCFD does not issue separate permit or certification; they review the drawings and sign the City of Chicago Department of Buildings Permit Application.

Mr. Tony Tyler from CCFD was present during the testing of the Fire Pump on August 2, 1995, see enclosed copy of Fire Pump Performance Test. The City of Chicago does not issue a letter of approval or certification for pump testing, they only witness the test.



H-S-T

Mr. Robert Watson, PE  
February 19, 1996  
Page 2

We trust that this letter explains the review and permitting procedure of the Fire Protection System by CCFD.

Sincerely,

HOYER-SCHLESINGER-TURNER, INC.

*Marie Vanagas*

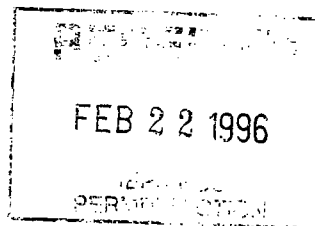
Marie Vanagas, PE








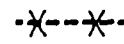
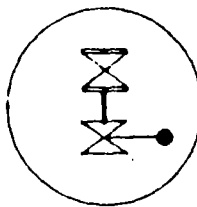
MV/ar  
Encl.

CC: Mr. Paul Whiting, Vice President, CHCI - Weymouth, MA  
Mr. Jim Laubsted, Plant Manager, CHCI - Chicago, IL



ACCESS GATE



-  DENOTES MONITOR
-  DENOTES MONITOR
-  DENOTES POST IND
-  DENOTES MOTORIZED
-  DENOTES BUFFALO
-  DENOTES NEW PIPE
-  DENOTES EXISTING
-  DENOTES EXISTING TO BE ABANDONED
-  DENOTES N.R.S. VALVE IN VAULT, SHEET FP

CONTRACTORS CERTIFICATE OF TEST TO BE  
SUBMITTED TO BUREAU OF FIRE PREVENTION  
WHEN WORK HAS BEEN COMPLETED.



DENOTES EXISTING  
PICKUP TUBE FOR M



DENOTES HYDRAULIC



DENOTES BUILDING

## REVIEWED

SUBJECT TO FINAL INSPECTION AND  
TO ANY CHANGES NOTED.  
BUREAU OF FIRE PREVENTION

DATE JUL 13 1995 EXAMINED BY [Signature]  
ENGINEER

PERMIT NO. 24917

|     |          |     |           |
|-----|----------|-----|-----------|
| 6   | 12-14-94 | MG  | PER CLEAN |
| 5   | 7-12-94  | SS  | PER CLEAN |
| 4   | 7-6-93   | SAM | PER HAZOP |
| 3   | 5-31-93  | SAM | ADD NOTE  |
| 2   | 12-15-92 | SAM | PER MEETI |
| 1   | 12-9-92  | SAM | PER SEC D |
| NO. | DATE     | BY  | REVISIONS |

TION SYSTEMS COMPANY  
ST, ILLINOIS \*60126

### SYSTEM TYPE

|                               |                                    |                                    |                          |
|-------------------------------|------------------------------------|------------------------------------|--------------------------|
| <input type="checkbox"/> PIPE | <input type="checkbox"/> PREACTION | <input type="checkbox"/> HALON     | <input type="checkbox"/> |
| <input type="checkbox"/> PIPE | <input type="checkbox"/> PRE FOAM  | <input type="checkbox"/> CO2       | <input type="checkbox"/> |
| <input type="checkbox"/>      | <input type="checkbox"/> WET FOAM  | <input type="checkbox"/> DRY CHEM. | <input type="checkbox"/> |

### APPROVALS

|      |      |          |
|------|------|----------|
|      | SENT | RECEIVED |
| CWM  |      |          |
| CITY |      |          |



GRINNELL  
FIRE  
PROTECTION  
SYSTEMS

### CONTRACT NAME:

CHEMICAL WASTE MANA  
CLEAN HARBORS  
11700 S. STONY ISLAN  
CHICAGO, ILLINOI

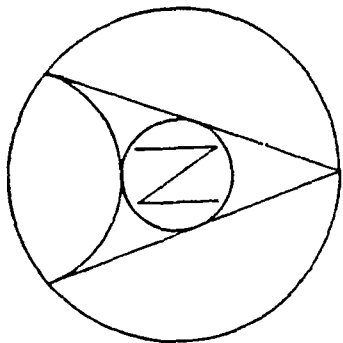
### CONTRACT WITH:

CLEAN HARBORS ENVIRONMENTA  
325 WOOD ROAD  
BRAINTREE, MASSACHU:

### DESCRIPTION:

PROPOSED SITE PL/

0000



SIT

INTERSTA



**CITY OF CHICAGO— FIRE DEPARTMENT**  
BUREAU OF FIRE PREVENTION

TURNER INC #016296

NO. .24917.

FEE, \$

13 July 19 95

Permission is hereby granted to

conduct  
install

Sprinkler Heads  
CHEN. WASTE MGMT.  
CLEAN HARBORS

in the building located at

11700 S. STONY ISLAND -

in accordance with the provisions of the Municipal Code of Chicago regulating the installation of fire protection equipment.

Standpipe Risers

Sprinkler Head

330

Cap. of Fire Pump

John J. Armand

Deputy Fire Commissioner

Received amount indicated hereon

WALTER R. [Signature]

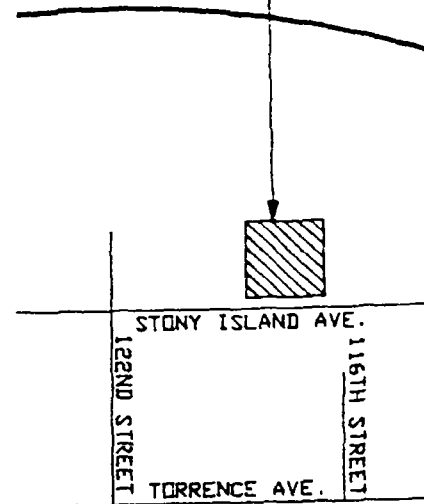
City Comptroller

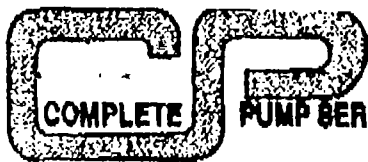
City Collector

NOT VALID UNLESS SIGNED BY CITY COLLECTOR

GRC-124474-10

SITE  
LOCATION





COMPLETE PUMP SERVICE CO. INC.

TEST DATE 08-02-95 JOB NUMBER 33025

(708) 628-1800

FIRE PUMP PERFORMANCE TEST

461 S. IRMEN ADDISON, IL 60101

FAX (708) 628-1709

BILL TO:  
ACME SPRINKLER SERVICE CO.  
645 S. CLARK  
CHICAGO, IL. 60605

MAKE: CMMINS  
MOTOR HP: 182  
MOTOR SPEED: 1760  
MOTOR FRAME:  
MOTOR AMPS:  
MOTOR VOLTS:

JOCKEY:  
MODEL:  
JOCKEY HP:  
JOCKEY SPEED:  
JOCKEY VOLTS:  
J/P SN:

JOB LOCATION:  
11700 S. STONEY ISLAND  
CHICAGO, IL.

PANEL MAKE: FIRETROL  
PANEL MODEL: FTA1100-ELIZNAC  
PANEL SN: 143055

FIRE PUMP MAKE: PATTERSON  
MODEL: MABS SIZE: 8 X 6  
1 STAGE 1750 RPM 1500 GPM AT 125 PSI  
140 PSI AT CHURN 107 PSI AT 150%  
WOODS COUPLING 1725 IMPELLER DIA  
SERIAL NUMBER: 91PT16194L6

| PITOT TUBE PRESSURE |    |    |    |   |  |  | GPM | P R E S S U R E |       |     | RPM  | OIL      |    |  | COOLING |      |  |
|---------------------|----|----|----|---|--|--|-----|-----------------|-------|-----|------|----------|----|--|---------|------|--|
| C                   | H  | U  | R  | N |  |  |     | SUCTN           | DISCH | NET |      | PRESSURE |    |  | WATER   | TEMP |  |
|                     |    |    |    |   |  |  |     | 30              | 178   |     | 1794 |          | 65 |  |         | 150  |  |
| 18                  | 18 |    |    |   |  |  |     | 21              | 167   |     | 1810 |          | 60 |  |         | 175  |  |
| 18                  | 18 | 17 |    |   |  |  |     | 14              | 158   |     | 1811 |          | 60 |  |         | 180  |  |
| 16                  | 17 | 18 | 18 |   |  |  |     | 5               | 145   |     | 1802 |          | 60 |  |         | 180  |  |
| 29                  | 28 | 5  | 10 |   |  |  |     | -10             | 138   |     | 1804 |          | 60 |  |         | 180  |  |
| C                   | H  | U  | R  | N |  |  |     | 22              | 180   |     | 1857 |          | 60 |  |         | 180  |  |
|                     |    |    |    |   |  |  |     |                 |       |     |      |          |    |  |         |      |  |
|                     |    |    |    |   |  |  |     |                 |       |     |      |          |    |  |         |      |  |

ATTENDANCE

FIRE DEPT: CHICAGO  
REP: TONY TYLER

SPRINKLER CO: ACME  
REP: TIM MORRIN

INSURANCE CO:  
REP:  
BUILDING REP: ALLEN MOUNT,

DIESEL REP:  
--COMPLETE PUMP SERVICE REPS--  
STEVE LULOH & RON TENUT

ZONE

EQUIPMENT & SETTINGS

|                  | ON  | OFF |
|------------------|-----|-----|
| JOCKEY PUMP      | 115 | 130 |
| FIRE PUMP 1      | 100 | 115 |
| FIRE PUMP 2      | 90  | 100 |
| FIRE PUMP 3      |     |     |
| DIESEL FIRE PUMP |     |     |

FIRE PUMP NUMBER TWO (2) IS THE NEW FIRE PUMP THAT GETS ITS SUCTION FROM THE CITY CUSTOMER SAID NEW PUMP IS TO BE BACK UP PUMP.

cc: Maywood  
USEPA  
**Clean Harbors**  
ENVIRONMENTAL SERVICES, INC.

11800 SOUTH STONY ISLAND AVENUE • CHICAGO, ILLINOIS 60617  
(312) 646-6202 • FAX (312) 646-6381

0316000051 - Cook  
Chicago/Clean Harbors of Chicago  
P. [signature]

Certified Mail #Z781269715

February 2, 1996

Illinois Environmental Protection Agency  
Bureau of Land  
Planning and Reporting Section  
2200 Churchill Road  
Post Office Box 19276  
Springfield, IL 62794-9276

Dear Sir:

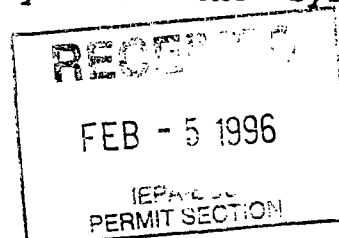
Enclosed is documentation submitted as a requirement of the Clean Harbors of Chicago, Inc. RCRA Part B Permit (RCRA Log No. 16-M-2, 0316000051). This is required by a Special Condition, Attachment D, Part G, Number 8 on page D-12.

The Special Condition requires Clean Harbors of Chicago, Inc. to develop a maintenance tracking system and implement a preventive maintenance program that includes mechanical equipment at the facility. Clean Harbors is using MAPCON software for the maintenance tracking system. The Computerized Maintenance Management Program (CMMP) is set up to:

- 1) Provide a database for tracking equipment specifications
- 2) Provide a simple user-friendly system to automatically generate routine work orders and track general plant maintenance issues
- 3) Provide an inventory management system
- 4) Provide a method for tracking costs associated with the system
- 5) Provide the flexibility to grow and adapt to the facility's needs over time

Clean Harbors is currently using this system for its preventive maintenance program.

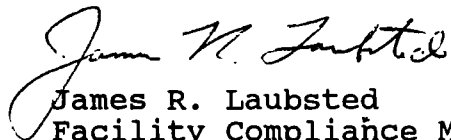
Enclosed is a description of the system, the MAPCON demo software, instructions on use of the system, and samples of PM workorders generated by the CMMP system. The system is available for Agency inspection.



Please note that the MAPCON software is covered under a license agreement which is enclosed. It is the software supplier's wish that whomever utilizes the demo review the agreement and consent to the stated conditions.

If you have any further questions or would require any additional information, please contact me at (312)646-6202.

Sincerely,

A handwritten signature in cursive script, appearing to read "James R. Laubsted".

James R. Laubsted  
Facility Compliance Manager

The attached is a summation of a CMMP (computerized maintenance management program) which has been installed and set up for the Clean Harbors of Chicago facility. CHES (Clean Harbors Environmental Services Inc) is in the process of installing CMMP's in all of their facilities nationally. As of this date, the software submitted with this package, *Mapcon* is the software of choice for all the company's facilities and is currently being used at three of it's larger sites.

The software demo submitted with this package is an interactive system. It is fully functional and with the exception of the number of records which can be installed, there is no difference between the demo and what the mfg sends to a client upon purchasing a system. Most software mfg's provide demos for prospective clients to review. There are several different ways suppliers protect their investment while at the same time providing the customer with a good representation of their product. Some suppliers provide non-interactive systems. Some provide interactive systems that have built-in time limitations which cause the system to self destruct after the time limitation is used up. This particular supplier provides an actual "live" system with no time limitations. The demo system's only limitation is the 50 pieces of equipment which can be entered thus making it impractical as a viable system within a plant setting (should some one try to use the demo for something other then it's intended service). The demo comes with sample equipment pre-loaded so the person viewing the system need not go through extensive efforts required to enter all the data required to make a system "function". The equipment loaded in the enclosed demo is the software suppliers equipment, not CHES's.

The Mapcon software submitted is covered under a license agreement which is attached. It is the software supplier's wish that whom ever wishes to utilize the demo review of this agreement and consent to the conditions laid out in same.

There are instructions enclosed which explain how to use the software. One of the factors considered in selecting this particular vendor's product was it's ease of use. With a simple basic understanding of CMMP systems, one can jump right in and use this system. As the user becomes more familiar with the system it has the ability to be altered by the end user to suit their needs.

This ability to be modified is a very useful feature. It allows taking a generic product and making fit a company's particular needs.

The Computerized Maintenance Management Program (CMMP) set up to operate at the Clean Harbors of Chicago has 5 basic goals.

- 1) Provide a database for tracking equipment specifications
- 2) Provide a simple user friendly medium to automatically generate routine work orders and track general plant / equipment maintenance issues.
- 3) Provide an inventory management system
- 4) Provide a method for tracking costs associated with equipment, areas, processing systems, ect.
- 5) Provide the flexibility to grow and adapt to the facility's needs over time.

It is important for one to remember the goals of a CMMP. The CMMP is a tool utilized to help in the management of a facility's maintenance program. It is one of many "tools" used in the process.

It is a dynamic item. By it's nature it must be routinely updated so as to keep up with the facility's constantly changing needs. This is especially true with new facilities.



Equipment, as defined by the software mfg, is an item which the end user might perform maintenance on. A piece of equipment can be as generic as, "Air Sys" (complete compressed air system) or as detailed as "Comp., C-1" (one of the air compressors within the air system). There are no limitations on the level of detail. It is entirely up to the end user. Examples of some typical equipment data are attached. See "Equipment Nameplate Data".

When setting up our system we used both generic pieces of equipment as well as detailed ones. The detailed piece might be "linked" to the generic piece. This allows us to write work orders against the generic piece of equipment, covering several pieces of detailed equipment under one work order. This is a more realistic representation of what actually takes place in the real world. Should the need arise to perform maintenance on one of the particular components covered under the generic equipment, the system manager can generate a work order for that particular item.

Figure 2 shows a generic piece of equip, "FBU" which is the fuels blending systems installed. The various sub pieces are listed below the FBU.

Figure 3 shows one of the tank farms, in this case the tanks associated with the fresh blending and receiving systems. This tank farm has been labeled "TANK FARM A" within the software so as to allow PM's to be developed encompassing many items within the tank farm to be covered under 1 work order.

# NAMEPLATE DATA EXAMPLES

| EQUIPMENT DATA ENTRY (1 of 5)   |                        |               |                           |           | MAPCON |
|---|------------------------|---------------|---------------------------|-----------|--------|
| EQUIPMENT #-PMP:P-1101    NEXT LEVEL EQP #-PLANT..B    DATE INSTALLED |                        |               |                           |           |        |
| DESC-FIRE WATER SERVICE BOOSTER PUMP #1    KEYWORD-PUMPS    RATING 9  |                        |               |                           |           |        |
| MODEL #<br>411BF  | SERIAL #<br>81133114-1 | STATUS<br>IN  | WARRANTY                  | DRAWING # |        |
| LEVEL 1<br>LOCATION PLANT B   | LEVEL 2<br>BLDG B-3    | LEVEL 3<br>-- | COST CENTER<br>UTILITIES  |           |        |
| DESCRIPTION MAIN WATER SUPPLY PUMP HOUSE                              |                        |               | WATER, ELEC, FIRE, HVAC   |           |        |
| VENDOR #    VENDOR NAME<br>UNKNOWN UNKNOWN LOCAL VENDOR               |                        |               |                           |           |        |
| MFG #<br>AURORA   | MANUFACTURER NAME      |               | REPLACEMENT COST    AS OF |           |        |

| EQUIPMENT DATA ENTRY (2 of 5)                 |   | MAPCON                |  |
|---|---|-----------------------|--|
| EQP # PMP:P-1101                              | DESCRIPTION FIRE WATER SERVICE BOOSTER PUMP #1 FIRE WATER SERVICE BOOSTER PUMPS |                       |  |
| NAMEPLATE INFORMATION                         |   | NAMEPLATE INFORMATION |  |
| PUMP S/N ..... 411BF                          | PUMP S/N ..... 81133114-1   |                       |  |
| PUMP SIZE ..... 5 X 6 X 15                    | PUMP CAPACITY ..... 1125 @ 175 FT HEAD CAPACITY                                 |                       |  |
| MOTOR HP ..... 75                             | MOTOR HP ..... 75   |                       |  |
| MOTOR SPEED ..... 1775                        | MOTOR FRAME ..... 365 TSTE  |                       |  |
| MOTOR VOLT ..... 230/460                      | MOTOR ENCLOSURE ..... TE  |                       |  |
| MISC: Motor: Service Factor - 1.15    3 phase |   |                       |  |

## EQUIPMENT DATA ENTRY (1 of 5)

MAPCON

EQUIPMENT # GEN.SET.03 NEXT LEVEL EQP # PLANT..B DATE INSTALLED  
 DESC EMERG GEN SET OUT BY LG WATER TANKS KEYWORD GENERATORS RATING 6  
 MODEL # SERIAL # STATUS WARRANTY DRAWING #  
 MT855 IN

| LEVEL 1<br>LOCATION PLANT B                   | LEVEL 2<br>TNK FRM B | LEVEL 3<br>-- | COST CENTER<br>UTILITIES |
|---|----------------------|---------------|--------------------------|
| DESCRIPTION PROCESS/STORM WATER COLLECTION TA |                      |               | WATER,ELEC,FIRE,HVAC     |

VENDOR # VENDOR NAME  
 OBRAIN O'BRIAN MACHINE CO

MFG # MANUFACTURER NAME

REPLACEMENT COST AS OF

## EQUIPMENT DATA ENTRY (2 of 5)

## EQUIPMENT DATA ENTRY (2 of 5)

MAPCON

EQP # GEN.SET.03 DESCRIPTION EMERG GEN SET OUT BY LG WATER TANKS  
 GENERATORS

## NAMEPLATE INFORMATION

## NAMEPLATE INFORMATION

|                    |             |                            |            |
|--------------------|-------------|----------------------------|------------|
| ENGINE MFG .....   | CUMMINS     | ENGINE GENERATOR MFG ..... | ONAN       |
| ENGINE M/N .....   | MT855 G2    | ENGINE GENERATOR M/N ..... | OB150KDW63 |
| ENGINE S/N .....   | 11332493    | ENGINE GENERATOR S/N ..... | G3135      |
| ENGINE HP .....    | 355         | ENGINE GENERATOR KW .....  | 150        |
| SWITCH GEAR M/N .. | OTCU60OG14G | SWITCH GEAR S/N ..         | D890226235 |

NOTE: GENERATOR SUPPLIED BY "O'BRIAN MACHINE CO" TRANSFER SWITCH BY O'BRIAN MACHINE CO

## EQUIPMENT DATA ENTRY (1 of 5)

MAPCON

EQUIPMENT #-MUFF.MNSTR NEXT LEVEL EQP #-F.B.U. DATE INSTALLED 07/01/95

DESC-FBU FINE SHREDDER (MUFFIN MONSTER) KEYWORD-SHREDDER RATING 8

|            |          |        |          |           |
|------------|----------|--------|----------|-----------|
| MODEL #    | SERIAL # | STATUS | WARRANTY | DRAWING # |
| 30004-12-4 | 10896    | IN     |          |           |

|  |         |              |                        |
|--|---------|--------------|------------------------|
| LEVEL 1                                      | LEVEL 2 | LEVEL 3      | COST CENTER            |
| LOCATION PLANT B                             | BLDG 43 | LOWER LVL -- | FUELS                  |
| DESCRIPTION LOWER LVL OF FUELS BLENDING BLDG |         |              | FUELS BLENDING SYSTEMS |

|          |                   |
|----------|-------------------|
| VENDOR # | VENDOR NAME       |
| JWC100   | JWC ENVIRONMENTAL |

|       |                   |                  |       |
|-------|-------------------|------------------|-------|
| MFG # | MANUFACTURER NAME | REPLACEMENT COST | AS OF |
|-------|-------------------|------------------|-------|

## EQUIPMENT DATA ENTRY (2 of 5)

MAPCON

|                  |   |
|------------------|---|
| EQP # MUFF.MNSTR | DESCRIPTION FBU FINE SHREDDER (MUFFIN MONSTER) SHREDDER |
|------------------|---|

| NAMEPLATE INFORMATION         |                   | NAMEPLATE INFORMATION |                    |
|-------------------------------|-------------------|-----------------------|--------------------|
| MANUFACT .....                | DISPOSABLE WASTE  | CONNECTED HP .....    | 5                  |
| M/N .....                     | 30004-12-4        | S/N .....             | 10896              |
| MISC .....                    | S/O # - 27834     | MISC .....            | 2. 4" INLET/OUTLET |
| MISC .....                    | 12" CUTTING CHAMB | MISC .....            | 13 TOOTH CAM 413   |
| MISC .....                    | SEAL CARTRIDGE: T | MISC .....            | 29:1 GEAR REDUCER  |
| MISC: Controller M/N - PC2220 |                   |                       |                    |

## EQUIPMENT DATA ENTRY (4 of 5)

MAPCON

EQUIPMENT # MUFF.MNSTR FBU FINE SHREDDER (MUFFIN MONSTER)

SAFETY PROCEDURES ASSOC WITH THIS EQUIP  
 LCKOUT GENERAL LOCK-OUT TAGOUT PROCEDURES  
 PEG.01 PPE REQUIRED FOR FBU

SERVICE CONTRACTS ASSOC W/EQUIP

## PARTS/COMPONENTS LIST FOR ASSOC EQUIP

| STOCK #        | SS | DESCRIPTION   | QUANTITY |
|----------------|----|---|----------|
| SYNGUARD..SX-6 | SS | GREASE FOR MUFFIN MONSTER BEARINGS                  | 1.00     |
| 34014-0001     | SS | GASKET, MUFFIN MONSTER, MAIN HOUSING                | 2.00     |
| 34014-0002     | SS | GASKET, MUFFIN MONSTER, END HOUSING                 | 1.00     |
| 34014-0003     | SS | GASKET, MUFFIN MONSTER, GEAR HOUSING                | 1.00     |
| 34041          | SS | GASKET, MUFFIN MONSTER, ACCESS PORT                 | 1.00     |
| 34046          | SS | O RING, MUFFIN MONSTER, VITON RING                  | 4.00     |
| 30016-0002     | SS | COUPLING, MUFFIN MONSTER, LOVE JOY W/ SFFIN MONSTER | 1.00     |
| 03410-V        | SS | O RING, MUFFIN MONSTER, #232 VITON                  | 1.00     |
| 31057-V        | SS | O RING, MUFFIN MONSTER, #229 VITON                  | 1.00     |
| 3401-V         | SS | O RING, #141, VITON                                 | 4.00     |

# FIGURE 1

Date:01/29/96

Equipment Hierarchy Tree Report  
By Equipment Number, 5 Levels

Time:13:17:02

Equipment Hierarchy Tree

Equipment Description

AIR..SYS-B

----- COMP..C-1

----- MTR..C-1

----- COMP..C-2

----- MTR..C-2

----- COMP..C-3

----- DRYER..01

----- DRYER..02

ENTIRE COMPRESSED AIR SYSTEM

MAIN SERVICE AIR COMPRESSOR (WEST)

MOTOR FOR #1 COMPRESSOR

MAIN SERVICE AIR COMPRESSOR (EAST)

MOTOR FOR #2 COMPRESSOR

SERVICE AIR COMPRESSOR #3 (BACK-UP)

COMPRESSED AIR DRIER #1 (MAIN UNIT)

COMPRESSED AIR DRYER #2 (OLD UNIT)

# FIGURE 2

Date:01/29/96

Equipment Hierarchy Tree Report  
By Equipment Number, 5 Levels

Time:13:18:00

## Equipment Hierarchy Tree

## Equipment Description

### F.B.U.

```

----- ARM..MOTOR
----- CONVEY..A
----- MTR..CON-A
----- CONVEY..B
----- MTR..CON-B
----- CONVEY..C
----- CONVEY..D
----- CONVEY..F
----- MTR..CON-F
----- CONVEY..G
----- CONVEYORS
----- CONVEY.SCRW
----- MTR..SCREW
----- D.O.PMP-01
----- DRUM.DEHED
----- FAN..EMISS
----- FBU..CNTRL
----- FBU.HY.CYL
----- FBU.HY.HDW
----- FBU.HY.PMP
----- FBU.HY.VLV
----- HYD..PMPS
----- MTR.HYDPM
----- HYD.FANMTR
----- MUFF.MNSTR
----- MTR..MUFFN
----- PANEL..M.M
----- O2..ANALYZ
----- SSI..SHRDR
----- MTR..SSI
----- PANEL..SSI
----- SSI..MOTOR
----- MTR..HSMIX
----- MTR..LSMIX
----- TANK..OVLG

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FUELS BLENDING UNIT
DRUM CRUSHER DRUM POSTION ARM MOTOR
FBU FEED CONVEYOR A-1 THRU A-5
MOTOR FOR FBU CONVEYOR A
FBU 4 DRUM LIFT
MOTOR FOR FBU CONVEYOR-B
FBU FEED CONVEYOR
FBU CONVEYOR INSIDE DPU
FBU EXIT CONVEYOR
MOTOR FOR FBU CONVEYOR-F
FBU EXIT CONVEYOR
FBU ENTIRE CONVEYOR SYSTEM
FBU SOLIDS SCREW CONVEYOR
FBU SOLIDS SCREW CONVEYOR MOTOR
FBU AIR DIAPHRAM DISCHARGE PUMP
FBU DRUM DEHEADER
FBU EMISSIONS CONTROL FAN
FBU OPERATOR CONTROL PANEL
FBU HYDRAULIC CYLINDERS (ALL)
FBU MISC HYDRAULIC SYS. COMPONENTS
FBU HYDRAULIC PUMPS
FBU HYDRAULIC VALVES (ALL)
FBU HYDRAULIC PUMPS
FBU-HYD SYS MAIN PUMP MOTOR
FBU HYDRAULIC COOLING FAN MOTOR
FBU FINE SHREDDER (MUFFIN MONSTER)
FBU FINE SHREDDER MOTOR
FBU MUFFIN MONSTER PANEL
FBU OXYGEN ANALYZER
FBU COURSE SHREDDER
MOTOR FOR FBU SSI SHREDDER
FBU SSI SHREDDER PANEL
FBU COURSE SHREDDER MOTOR
FBU DISPERSION TANK
MOTOR FOR HIGH SPEED MIXER
FBU LOW SPEED MIXER MOTOR
FBU OVERFLOW TANK

```

### Equipment Description

|           |            |  |
|-----------|------------|--|
| TNK.FRM.A |            | FUELS/PCB/WASTE WATER TANK FARM                |
| -----     | PANEL.TF.A | CONTROL PANEL FOR FUELS TANK FARM              |
| -----     | PMP:P-160  | TRUCK/RAILCAR UNLOADING PUMP                   |
| -----     | PMP:P-162  | LOAD/UNLOADING PUMP FOR TANK 112               |
| -----     | PMP:P-163  | FUELS BLENDING SUPPLY PUMP - AIR DIAPHRAM UNIT |
| -----     |            |  |
| -----     | PMP:P-178  | LOAD/UNLOAD PUMP FOR TANKS 101/107             |
| -----     | PMP:P-181  | PCB LOAD/UNLOAD PUMP FOR TANK-102              |
| -----     | PMP:P-184  | PCB LOAD/UNLOADING PUMP - TANK 110             |
| -----     | PMP:P-186  | FUELS LOAD/UNLOAD PUMP (ALL FUELS TANKS)       |
| -----     | PMP:P-187  | FUELS BLENDING TRANSFER PUMP                   |
| -----     | TANK..101  | GENERAL USE TANK - STAINLESS STEEL             |
| -----     | -----      | TANK BLANKETING REGULATOR                      |
| -----     | BLK-TNK101 | RADAR LEVEL SENSORS                            |
| -----     | LVL-TNK101 | TANK MIXER                                     |
| -----     | MIXER..101 | FUELS BLENDING STORAGE TANK                    |
| -----     |            | TANK BLANKETING REGULATOR                      |
| -----     | TANK..102  | RADAR LEVEL SENSORS                            |
| -----     | -----      | TANK MIXER                                     |
| -----     | BLK-TNK102 | FUELS BLENDING STORAGE TANK                    |
| -----     | LVL-TNK102 | TANK BLANKETING REGULATOR                      |
| -----     | MIXER..102 | RADAR LEVEL SENSORS                            |
| -----     |            | TANK MIXER                                     |
| -----     | TANK..103  | FUELS BLENDING STORAGE TANK                    |
| -----     | -----      | TANK BLANKETING REGULATOR                      |
| -----     | BLK-TNK103 | RADAR LEVEL SENSORS                            |
| -----     | LVL-TNK103 | TANK MIXER                                     |
| -----     | MIXER..103 | FUELS BLENDING STORAGE TANK                    |
| -----     |            | TANK BLANKETING REGULATOR                      |
| -----     | TANK..104  | RADAR LEVEL SENSORS                            |
| -----     | -----      | TANK MIXER                                     |
| -----     | BLK-TNK104 | FUELS BLENDING STORAGE TANK                    |
| -----     | LVL-TNK104 | TANK BLANKETING REGULATOR                      |
| -----     | MIXER..104 | RADAR LEVEL SENSORS                            |
| -----     |            | TANK MIXER                                     |
| -----     | TANK..105  | FUELS BLENDING STORAGE TANK                    |
| -----     | -----      | TANK BLANKETING REGULATOR                      |
| -----     | BLK-TNK105 | RADAR LEVEL SENSORS                            |
| -----     | LVL-TNK105 | TANK MIXER                                     |
| -----     | MIXER..105 | FUELS BLENDING STORAGE TANK                    |
| -----     |            | TANK BLANKETING REGULATOR                      |
| -----     | TANK..106  | RADAR LEVEL SENSORS                            |
| -----     | -----      | TANK MIXER                                     |
| -----     | BLK-TNK106 | FUELS BLENDING STORAGE TANK                    |
| -----     | LVL-TNK106 | TANK BLANKETING REGULATOR                      |
| -----     | MIXER..106 | RADAR LEVEL SENSORS                            |
| -----     |            | TANK MIXER                                     |
| -----     | TANK..107  | GENERAL USE TANK - STAINLESS STEEL             |
| -----     | -----      | TANK BLANKETING REGULATOR                      |
| -----     | BLK-TNK107 | RADAR LEVEL SENSORS                            |
| -----     | LVL-TNK107 | TANK MIXER                                     |
| -----     | MIXER..107 | FUELS BLENDING/RECEIVING TANK                  |
| -----     |            | TANK BLANKETING REGULATOR                      |
| -----     | TANK..109  | RADAR LEVEL SENSORS                            |
| -----     | -----      | TANK MIXER                                     |
| -----     | BLK-TNK109 | FUELS BLENDING STORAGE TANK                    |
| -----     | LVL-TNK109 | TANK BLANKETING REGULATOR                      |
| -----     | MIXER..109 | RADAR LEVEL SENSORS                            |
| -----     |            | TANK MIXER                                     |
| -----     | TANK..110  | PCB TANK                                       |
| -----     | -----      | TANK BLANKETING REGULATOR                      |
| -----     | BLK-TNK110 | RADAR LEVEL SENSORS                            |
| -----     | LVL-TNK110 | TANK MIXER                                     |
| -----     | MIXER..110 |  |



## Equipment Hierarchy Tree

## Equipment Description

TANK..112

BLK-TNK112

LVL-TNK112

MIXER..112

GENERAL USE TANK IN FUELS TANK FARM  
TANK BLANKETING REGULATOR  
RADAR LEVEL SENSORS  
TANK MIXER

## MAINTENANCE

There are two types work orders which are generated within the CMMP. One is a planned, routine PM (preventive maintenance) style work order. The other is an unplanned style work order. Unplanned does not necessarily mean emergency, critical, unimportant or non-repetative. It is simply a work order which either is not done on a scheduled basis, or is a one time style request.

PM and non-scheduled work orders can be written against any of the pieces of equipment. However one would not want to write a PM toward a air compressor which in fact was in fact an "air system" issue. To do so would attribute the all costs and history associated with these PM's solely onto the air compressor. This would be an accurate method to track maintenance details, especially if a facility has more then one air compressor.

We have set our system up to use as many routine scheduled work orders as is practical. The scheduling has been initially set based on manufacturers recommendations as well past experience. In many cases it is a combination of both. As time goes on these frequency intervals may (or may not) change. When developing routine, PM style work orders, it is possible to include many details such as job steps to be taken, applicable safety procedures, and required parts. Work orders generated by the system based on these predefined PM's

Some examples of routine scheduled PM's are shown.

An important note - For purposes of discussing maintenance software, a PM is not a work order. PM's are procedures written out, which, when assigned to pieces of equipment and given a frequency, create work orders.

Work orders are generated as needed. Initially the system was set up with the thought that those utilizing the system would generate PM work orders on a weekly basis. To do so more or less often will not hinder the operation of the system. A person could go in and generate all the PM style work orders for an entire month. One merely assigns the dates for the system to operate within, and it will search the database to find all PM work orders which will be due during this time period. Routine scheduled work orders are generated based on a combination of the date last done, the frequency as laid out in the PM setup and the time period selected to generate work orders within.

**P M D E S C R I P T I O N**  
**Clean Harbors of Chicago**  
**Page:1**

**PM: PEG.01    Type: PM    Title: FBU INSPEC (CONVEYORS AND SHREDDERS)**

**PM INFORMATION**

**WO Status: P                      Allow Multiple WOs:    N                      Priority: 1**

**PM DESCRIPTION**

**FBU CONVEYOR AND SHREDDER INSPECTION**

**EQUIPMENT COVERED UNDER THIS WORK ORDER**

|                         |                             |                  |
|-------------------------|-----------------------------|------------------|
| CONVEYOR A1 - A5 _____, | CONVEYOR B _____,           | CONVEYOR C _____ |
| CONVEYOR F _____,       | CONVEYOR G _____,           | CONVEYOR H _____ |
| FOUR DRUM LIFT _____,   | 1 DRUM LIFT _____,          | SSI SHREDD _____ |
| LOW SPEED MIXER _____,  | SOLIDS SCREW CONVEYOR _____ |                  |
| DRUM DEHEADER _____     |                             |                  |

| Item           | Description                                  | Qty             |
|----------------|--|-----------------|
| SS CHAIN..LUBE | GRAPHITE SPRAY LUBE                          | .50             |
| SS ATF         | TRANSMISION FLUID                            | .30             |
| Foreman        | Craft   Crew   CP   CCP   S1   S2   S3   Men | Hours   Est Hrs |
|                | MECH   | .00             |

**JOB STEPS**

**CHECK ALL CONVEYORS FOR PROPER OPERATION.**  
**ALL ROLLERS SHOULD TURN FREELY ON NON-MOTORIZED UNITS AND NOT TURN FREELY AT ALL FOR MOTORIZED SECTIONS.**  
**VERIFY SENSOR ROLLERS PERFORM THE DESIRED EFFECT.**  
**HAVE OPERATOR RUN BOTH THE FOUR DRUM LIFT AND THE PROBLEM DRUM LIFT AND ONE FULL CYCLE. WATCH FOR ANY BINDING OR OTHER INAPPROPRIATE OPERATION. INSPECT DISCHARGE CONVEYOR. DRUM PIECES, DRUM RINGS, RAGS, ETC. ARE BOUND TO COLLECT HERE ONLY TO CAUSE PROBLEMS.**  
**OBSERVE THE COMPLETE CONVEYOR SYSTEM FOR PROPER OPERATION.**  
**CHECK OIL LEVEL IN SOLIDS SCREW CONVEYOR.**  
**CHECK OIL LEVEL IN SHREDDER. THERE ARE TWO SECTIONS CONTAINING OIL. THE MAIN SECTION CONTAINING THE SHREDDER ITSELF, AND THE GEAR REDUCER SECTION.**  
**THERE ARE TWO GREASE FITTINGS ON THE GEAR REDUCER WHICH REQUIRE FREQUENT GREASING.**  
**CHECK OIL LEVEL IN LOW SPEED MIXER GEAR REDUCER.**  
**CHECK OIL LEVEL IN DRUM DEHEADER AIR MOTOR LUBRICATOR.**  
**CHECK PILLOW BLOCK HOLD DOWN BOLTS ON DRUM TILT CARRIAGE.**  
**CAREFULLY RAISE HIGH SPEED MIXER OUT OF DISPERSION TANK AND INSPECT BLADE ASSEMBLY FOR WEAR. REPLACE AS NECESSARY.**

**CONTINUED NEXT PAGE...**

# P M D E S C R I P T I O N

Clean Harbors of Chicago

Page:2

PM: PEG.01 Type: PM Title: FBU INSPEC (CONVEYORS AND SHREDDERS)

Equipment

Description

F.B.U.

FUELS BLENDING UNIT

## APPROVAL INFORMATION

Approved By: GARY WALWER

Last Review: 05/31/95

Next Review: 05/30/96

05/30/96

**P M D E S C R I P T I O N**  
**Clean Harbors of Chicago**  
 Page:1

PM: PEG.02    Type: PM    Title: FBU INSPEC    (HYDRAULICS, OILS, BLADES)

**PM INFORMATION**

WO Status: P    Allow Multiple WOs: N    Priority: 1

**PM DESCRIPTION**

INSPECTION OF FBU HYDRAULIC SYSTEM, LUBE OIL LEVELS, MIXER BLADES

| Foreman | Craft | Crew | CP | CCP | S1 | S2 | S3 | Men | Hours | Est Hrs |
|---------|-------|------|----|-----|----|----|----|-----|-------|---------|
|         | MECH  |      |    |     |    |    |    |     |       | .00     |

**JOB STEPS**

- \_\_\_\_ CHECK HYDRAULIC FILTERS. BEAR IN MIND THAT THERE MUST BE A SUBSTANTIAL FLOW THROUGH THE FILTER IN ORDER FOR THE INDICATORS TO GIVE AN ACCURATE INDICATION OF THE FILTERS CONDITION.
- \_\_\_\_ INSPECT THE ENTIRE SYSTEM FOR LEAKS. DO NOT ATTEMPT TO TIGHTEN ANY FITTINGS WHILE THE SYSTEM IS PRESSURIZED. BREAKING A HYDRAULIC LINE/FITTING WHILE UNDER PRESSURE IS NOT A PRETTY SIGHT.
- \_\_\_\_ CHECK HYDRAULIC LEVEL IN MAIN RESEVOIR. ADD FLUID AS NECESSARY.
- \_\_\_\_ CHECK ALL HYDRAULIC CYLINDERS WHICH CAN BE VIEWED.
- \_\_\_\_ CHECK ALL HOSES AND PIPING TO MAKE SURE BRACKETS HAVE NOT LOOSEENED UP. THERE IS SUFFICIENT VIBRATION TO CAUSE THESE BRACKETS TO WORK LOOSE ON A REGULAR BASIS.
- \_\_\_\_ DISCHARGE PRESSURE AT THE "BACK" HYDRAULIC PUMP SHOULD BE APPROX 2000 PSI. PRESSURE WILL DROP DURING AND DEPENDING ON LOAD/DEMAND. A DROP TO LESS THAN 1000 PSI SHOULD BE VIEWED AS ABNORMAL. THE "FORWARD" PUMP (FURTHEST AWAY FROM THE MOTOR) TYPICALLY RUNS 500 PSI OR LESS.

| Equipment | Description |
|-----------|-------------|
|-----------|-------------|

|        |                     |
|--------|---------------------|
| F.B.U. | FUELS BLENDING UNIT |
|--------|---------------------|

**APPROVAL INFORMATION**

Approved By: GARY WALWER    Last Review: 06/01/95    Next Review: 05/31/96

PM DESCRIPTION  
Clean Harbors of Chicago  
Page:1

PM: PEG.03    Type: PM    Title: FBU INSPEC (DOORS, LIMIT SWITCHES ECT)

WO Status: P                      PM INFORMATION                      :  
Allow Multiple WOs:    N                      Priority: 1

### PM DESCRIPTION

## GENERAL INSPECTION OF FBU (DOORS, LIMIT SWITCHES, CONVEYORS)

[illegible]

## JOB STEPS

- CHECK DOOR A CYLINDER. MAKE SURE MOUNTING BOLTS ARE SECURE (4).  
— CHECK FOUR DRUM LIFT CHAIN - VERIFY IT IS NOT OVERLY LOOSE.  
— CHECK LIMIT SWITCHES - ENSURE ALL ARE SECURE IN POSITION.

**\* NOTE**

THERE ARE 13 SWITCHES!

- 3 ON FEED CONVEYOR, 2 ON FOUR DRUM LIFT, 2 ON DOOR A,  
2 ON DOOR C, 2 ON DRUM TILT CARRIAGE POSITON INDICATOR,  
1 ON PROBLEM DRUM LIFT, 1 ON CLEAN-OUT DOOR FOR AUGER CAR ENCLOSURE

- CHECK ALL PIPING TO VERIFY BRACKETS ARE TIGHT.  
— CHECK ENCLOSURE ACCESS PLATE BOLTS. VERIFY ALL ARE IN PLACE AND  
TIGHT.

A LIGHT TAP WITH A NON SPARKING HAMMER WILL INDICATE THOSE WHICH WILL  
NEED ATTENTION.

- CHECK THE CONVEYOR SAFETY GUARDS. THE CONVEYOR SAFETY GUARDS.  
CHECK BOTH DOUBLE DIAPHRAM PUMP FOR LEAKS AND PROPER OPERATION. LEAKS AND  
MAKE SURE AIR OILERS HAVE OIL (ANTIFREEZE) IN THEM AND BLOW DOWN  
MOISTURE SEPARATORS. MOISTURE SEPARATORS  
CHECK AIR DRYER PRE-FILTERS AND BLOW DOWN AS NECESSARY. AND BLOW DOWN AS

| Equipment | Description | Quantity | Unit Price | Total Price |
|-----------|-------------|----------|------------|-------------|
| 1         | 1.000       | 1.000    | 1.000      | 1.000       |
| 2         | 2.000       | 2.000    | 2.000      | 2.000       |
| 3         | 3.000       | 3.000    | 3.000      | 3.000       |
| 4         | 4.000       | 4.000    | 4.000      | 4.000       |
| 5         | 5.000       | 5.000    | 5.000      | 5.000       |
| 6         | 6.000       | 6.000    | 6.000      | 6.000       |
| 7         | 7.000       | 7.000    | 7.000      | 7.000       |
| 8         | 8.000       | 8.000    | 8.000      | 8.000       |
| 9         | 9.000       | 9.000    | 9.000      | 9.000       |
| 10        | 10.000      | 10.000   | 10.000     | 10.000      |
| 11        | 11.000      | 11.000   | 11.000     | 11.000      |
| 12        | 12.000      | 12.000   | 12.000     | 12.000      |
| 13        | 13.000      | 13.000   | 13.000     | 13.000      |
| 14        | 14.000      | 14.000   | 14.000     | 14.000      |
| 15        | 15.000      | 15.000   | 15.000     | 15.000      |
| 16        | 16.000      | 16.000   | 16.000     | 16.000      |
| 17        | 17.000      | 17.000   | 17.000     | 17.000      |
| 18        | 18.000      | 18.000   | 18.000     | 18.000      |
| 19        | 19.000      | 19.000   | 19.000     | 19.000      |
| 20        | 20.000      | 20.000   | 20.000     | 20.000      |
| 21        | 21.000      | 21.000   | 21.000     | 21.000      |
| 22        | 22.000      | 22.000   | 22.000     | 22.000      |
| 23        | 23.000      | 23.000   | 23.000     | 23.000      |
| 24        | 24.000      | 24.000   | 24.000     | 24.000      |
| 25        | 25.000      | 25.000   | 25.000     | 25.000      |
| 26        | 26.000      | 26.000   | 26.000     | 26.000      |
| 27        | 27.000      | 27.000   | 27.000     | 27.000      |
| 28        | 28.000      | 28.000   | 28.000     | 28.000      |
| 29        | 29.000      | 29.000   | 29.000     | 29.000      |
| 30        | 30.000      | 30.000   | 30.000     | 30.000      |
| 31        | 31.000      | 31.000   | 31.000     | 31.000      |
| 32        | 32.000      | 32.000   | 32.000     | 32.000      |
| 33        | 33.000      | 33.000   | 33.000     | 33.000      |
| 34        | 34.000      | 34.000   | 34.000     | 34.000      |
| 35        | 35.000      | 35.000   | 35.000     | 35.000      |
| 36        | 36.000      | 36.000   | 36.000     | 36.000      |
| 37        | 37.000      | 37.000   | 37.000     | 37.000      |
| 38        | 38.000      | 38.000   | 38.000     | 38.000      |
| 39        | 39.000      | 39.000   | 39.000     | 39.000      |
| 40        | 40.000      | 40.000   | 40.000     | 40.000      |
| 41        | 41.000      | 41.000   | 41.000     | 41.000      |
| 42        | 42.000      | 42.000   | 42.000     | 42.000      |
| 43        | 43.000      | 43.000   | 43.000     | 43.000      |
| 44        | 44.000      | 44.000   | 44.000     | 44.000      |
| 45        | 45.000      | 45.000   | 45.000     | 45.000      |
| 46        | 46.000      | 46.000   | 46.000     | 46.000      |
| 47        | 47.000      | 47.000   | 47.000     | 47.000      |
| 48        | 48.000      | 48.000   | 48.000     | 48.000      |
| 49        | 49.000      | 49.000   | 49.000     | 49.000      |
| 50        | 50.000      | 50.000   | 50.000     | 50.000      |
| 51        | 51.000      | 51.000   | 51.000     | 51.000      |
| 52        | 52.000      | 52.000   | 52.000     | 52.000      |
| 53        | 53.000      | 53.000   | 53.000     | 53.000      |
| 54        | 54.000      | 54.000   | 54.000     | 54.000      |
| 55        | 55.000      | 55.000   | 55.000     | 55.000      |
| 56        | 56.000      | 56.000   | 56.000     | 56.000      |
| 57        | 57.000      | 57.000   | 57.000     | 57.000      |
| 58        | 58.000      | 58.000   | 58.000     | 58.000      |
| 59        | 59.000      | 59.000   | 59.000     | 59.000      |
| 60        | 60.000      | 60.000   | 60.000     | 60.000      |
| 61        | 61.000      | 61.000   | 61.000     | 61.000      |
| 62        | 62.000      | 62.000   | 62.000     | 62.000      |
| 63        | 63.000      | 63.000   | 63.000     | 63.000      |
| 64        | 64.000      | 64.000   | 64.000     | 64.000      |
| 65        | 65.000      | 65.000   | 65.000     | 65          |

F.B.U. ✓ FUELS BLENDING UNIT

## APPROVAL INFORMATION

Approved By: GARY WALWER  
Last Review: 06/01/95

Next Review: 05/31/96

PM INFORMATION

Priority: 1

PM DESCRIPTION

**FBU DISPERSION TANK CLEANOUT AND INSPECTION**

| Foreman | Craft | Crew | CP | CCP | S1 | S2 | S3 | Men | Hours | Est Hrs |
|---------|-------|------|----|-----|----|----|----|-----|-------|---------|
|---------|-------|------|----|-----|----|----|----|-----|-------|---------|

|      |  |  |  |  |  |  |  |  |    |
|------|--|--|--|--|--|--|--|--|----|
| MECH |  |  |  |  |  |  |  |  | .0 |
|------|--|--|--|--|--|--|--|--|----|

## JOB STEPS

RAISE HIGH SPEED MIXER AND CHECK THE BLADE MOUNTING BOLTS.

RUN THE LOW SPEED MIXER AND VERIFY UNIT IS OPERATING CORRECTLY.

CLEAN OUT DISPERSION TANK. LIQUIDS TO THE APPROPRIATE TANK IN THE TANK FARM. SOLIDS INTO A DRUM FOR PROCESSING.

CLEAN OUT OVERFLOW TANK.

INSPECT ALL INTERNAL COMPONENTS FOR BOTH TANKS.

# Equipment

### Description

**FBI**

## FUELS BLENDING UNIT

FUEL BLENDING UNIT

## APPROVAL INFORMATION

Approved By: GARY WALWER

**Last Review:** 06/01/95

**Next Review: 05/31/96**

WO Status: P

Allow Multiple WOs: N

**Priority: 3**

## SHOCK ABSORBERS - OIL CHANGE AND GENERAL INSPECTION

**Foreman**

| Craft | Crew | CP | CCP | S1 | S2 | S3 | Men | Hours | Est Hrs |
|-------|------|----|-----|----|----|----|-----|-------|---------|
|-------|------|----|-----|----|----|----|-----|-------|---------|

|      |  |  |  |  |  |  |  |  |     |
|------|--|--|--|--|--|--|--|--|-----|
| MECH |  |  |  |  |  |  |  |  | .00 |
|------|--|--|--|--|--|--|--|--|-----|

TAKE UNIT TO BE SERVICED OFF LINE AND FOLLOW LOCK-OUT/TAG-OUT PROCEDURES.

DRAIN OIL FROM GEAR CASE/RESEVOIR/SUMP.

INSPECT OIL FOR ANY METAL SHAVINGS/FILINGS/PEICES. NOTE OBSERVATIONS.

REMOVE AND CLEAN OIL LEVEL SIGHT GLASS AS NECESSARY. BE CAREFUL.

REPLACE WITH PROPER OIL AS LISTED IN THE "MATERIALS" SECTION OF THIS WORK ORDER.

VERIFY NO LEAKS.

**CLEAN EQUIPMENT.**

IF POSSIBLE RUN PIECE OF EQUIPMENT TO VERIFY PROPER OPERATION.

DISPOSE OF WASTE OIL IN PROPER CONTAINER.

WHEN COMPLETED WITH SERVICING, REMOVE ANY "LOCK-OUT/TAG-OUT" ITEMS. AND

CHECK OIL LEVELS. REPLENISH AS NECESSARY. REPLENISH AS NECESSARY.

**CHECK ANY/ALL HYDRAULIC HOSES FITTINGS. HYDRAULIC HOSES FITTINGS**

CHECK AND CHANGE ANY HYDRAULIC FILTERS AS REQUIRED.

**CHECK MISCELLANEOUS MOUNTING AND ENCLOSURE BOLTS.**

LUBRICATE ANY DOOR AND/OR INSPECTION PORT HINGES AND CLOSURE CLAMPS.

TEST SAME IF POSSIBLE.

IF POSSIBLE OPERATE THE PIECE OF EQUIPMENT AND VEFIFY PROPER OPERATION

REPAIR AS NECESSARY OR NOTE ANY ITEMS REQUIRING FURTHER ATTENTION.

## Equipment

### Description

F.B.U.

## FUELS BLENDING UNIT

## APPROVAL INFORMATION

Approved By: JEN DAVIS

**Last Review:** 08/28/95

**Next Review: 02/27/96**



## Page: 1

PM: COMP.1    Type: PM    Title: AIR COMPRESSOR GENERAL INSPECT

WO Status: P                      PM INFORMATION  
Allow Multiple WOs:    N                      Priority: 1

| PM DESCRIPTION                              |
|---|
| INSPECT AIR COMPRESSOR AND ASSOCAITED EQUIP |

[illegible]

## JOB STEPS

CHECK INSTRUMENT PANEL FOR ANY INDICATED ALARM CONDITIONS. REFER TO MANUAL SECTIONS 3.6, 3.7 OR 6.0 FOR DETAILS ON DECIPHERING AND CORRECTING ALARM CONDITIONS.

**CHECK COMPRESSOR FOR ANY OIL LEAKS.**

**CHECK COOLING COILS FOR LEAKS.**

### RECORD PRESSURE DROP ACROSS SEPARATOR

C-1 \_\_\_\_\_ C-2 \_\_\_\_\_ C-3 \_\_\_\_\_ (5 PSI NORMAL) \_\_\_\_\_  
RECORD AIR END DISCHARGE TEMP \_\_\_\_\_ AIR END TEST RANGE TEMP \_\_\_\_\_

C-1 \_\_\_\_\_ C-2 \_\_\_\_\_ C-3 \_\_\_\_\_ (195 NORMAL)

RECORD DISCHARGE PRESSURE

C-1 \_\_\_\_\_ C-2 \_\_\_\_\_ C-3 \_\_\_\_\_ (115 PSI NORMAL)  
CHECK OIL/COOLANT LEVEL. LEVEL SHOULD BE AT CENTER OF SIGHT GLASS WITH  
UNIT IN A "NO-LOAD" STATE. IF OIL IS TO BE ADDED, SHUT UNIT DOWN FIRST  
CHECK DISCHARGE FILTERS. \_\_\_\_\_  
CHECK DISCHARGE COOLER FOR ANY LEAKS. \_\_\_\_\_  
CHECK DRIER FOR PROPER OPERATION. \_\_\_\_\_  
CHECK BLOWDOWN MUFFLER FOR ANY SIGNS OF OIL \_\_\_\_\_

**YES**            **NO**  
**RIGHT TOWER**            **PRESS**

TEMP

LEFT TOWER PRESS  
TEMP

**CHECK FOR ANY AIR LEAKS IN SYSTEM.**

RECORD HOURS SHOWING ON BOTH COMPRESSOR HOUR METERS. 1001 10-1-54 1001

C-1 HOURS

C-2 HOURS

CONTINUED NEXT PAGE...

PM DESCRIPTION  
Clean Harbors of Chicago  
Page:2

PM: COMP.1 Type: PM Title: AIR COMPRESSOR GENERAL INSPECT

Equipment

Description

AIR..SYS-B  
AIR..SYS-A

ENTIRE COMPRESSED AIR SYSTEM  
SOUTH PLANT AIR SYSTEM

APPROVAL INFORMATION

Approved By: GARY WALWER  
Last Review: 03/31/95

Next Review: 03/30/96

# PM DESCRIPTION

Clean Harbors of Chicago

Page: 1

PM: T.F.01 Type: PM Title: TANK FARM GENERAL INSPECTION

## PM INFORMATION

WO Status: P

Allow Multiple WOs: N

Priority: 1

## PM DESCRIPTION

TANK FARM INSPECTION (TANK BLANKETING, VALVES, MIXERS)

| Foreman | Craft | Crew | CP | CCP | S1 | S2 | S3 | Men | Hours | Est Hrs |
|---------|-------|------|----|-----|----|----|----|-----|-------|---------|
|         |       |      |    |     |    |    |    |     |       |         |
|         | MECH  |      |    |     |    |    |    |     |       | .00     |

## JOB STEPS

INSPECT TANK MIXERS. CHECK LUBE OIL LEVELS.

IF POSSIBLE, CHECK COUPLING. THIS REQUIRES LOCK-OUT/TAG-OUT.

CHECK MOUNTING, WIRING AND GENERAL CONDITIONS.

CHECK TANK VENT/RELIEF COVERS AND SCREENS.

CHECK ALL VALVES. VERIFY NO LEAKS.

ENSURE ALL VALVES AND PUMPS ARE LABELED. NOT ANY ITEMS MISSING A LABEL.

CHECK PRIMARY TANK BLANKETING SUPPLY PRESSURE. BLANKETING SUPPLY PRESSURE PSI.

GO TO EACH TANK AND VERIFY TANK BLANKETING PRESSURE IS AT DESIRED PRESSURE. (TYPICALLY 3-5" WATER).

SHOULD ANY TANK NOT BE AT THE DESIRED PRESSURE

1. CHECK WITH OPERATIONS PEOPLE TO SEE IF THERE IS A LEGITIMATE REASON FOR THE BLANKETING TO BE SHUT OFF.

2. TRY RESETING THE BLANKETING REGULATOR TO THE DESIRED PRESSURE.

3. TAKE NOTE OF THE PROBLEM AND BRING IT TO THE ATTENTION OF THE MAINTENANCE SUPERVISOR.

DRAIN ALL WATER/CONDENSATE COLLECTION LEGS.

## Equipment Description

|           |                                     |
|-----------|-------------------------------------|
| TNK.FRM.A | FUELS/PCB/WASTE WATER TANK FARM     |
| TNK.FRM.B | STORM WATER COLLECTION TANKS        |
| TNK.FRM.C | SMALL TANK FARM AT MUTIL MEDIA AREA |
| TNK.FRM.D | TANK FARM AT ORIGINAL CHES SITE     |

## APPROVAL INFORMATION

Approved By: GARY WALWER

Last Review: 06/01/95

Next Review: 05/31/96

# **P M D E S C R I P T I O N**

Clean Harbors of Chicago

Page:1

PM: PMP..1    Type: PM    Title: MONTHLY INSPECTION OF LISTED PUMPS

## **PM INFORMATION**

WO Status: P    Allow Multiple WOs: N    Priority: 1

## **PM DESCRIPTION**

GENERAL INSPECTION OF LISTED PUMPS AND THEIR ASSOCIATED EQUIPMENT  
SEE ATTACHED SHEET FOR LIST OF PUMPS

| Item            | Description            | Qty                 |
|-----------------|------------------------|---------------------|
| SS EP-2         | GREASE                 | 1.00                |
| SS TEFLON..LUBE | SPRAY LUBE WITH TEFLON | 1.00                |
| Foreman         | Craft/Crew             | OP CCP S1 S2 S3 Men |
|                 | MECH                   | MECH                |
|                 |                        | Est Hrs             |

## **JOB STEPS**

REVIEW LIST OF PUMPS TO BE INSPECTED.  
ACTUALLY GO TO EACH PUMP AND CHECK ALL SEALS, PACKING, SEAL POTS

- \_\_\_\_\_ CHECK SEAL FOR LEAKAGE
- \_\_\_\_\_ CHECK PACKING FOR EXCESSIVE LEAKAGE
- \_\_\_\_\_ CHECK SEAL POT
- \_\_\_\_\_ CHECK COUPLING (VERIFY UNIT CAN NOT BE STARTED BEFORE DOING THIS)
- \_\_\_\_\_ HOLD DOWN BOLTS
- \_\_\_\_\_ VIBRATIONS (IF UNIT CAN BE RUN)

CHECK GENERAL CONDITION OF PIPING ATTACHED TO PUMP.  
CHECK GENERAL CONDITION OF WIRING TO PUMP MOTOR.  
WHEN CHECKING A SUMP PUMP

- \_\_\_\_\_ CHECK PUMP START STOP LEVEL CONTROLS
- \_\_\_\_\_ CHECK SUMP FOR DEBRIS AND REMOVE AS NECESSARY

NOTE ANY ITEMS REQUIRING FURTHER ATTENTION AND OR REPAIR. MARK THESE ITEMS IN THE COMMENT SECTION OF THE WORK ORDER.

| Equipment | Description                      |
|-----------|----------------------------------|
| PUMPS     | THIS INCLUDES ALL FACILITY PUMPS |

## **APPROVAL INFORMATION**

Approved By: GARY WALWER  
Last Review: 06/07/95

Next Review: 06/06/96

## **INVENTORY**

The system has a feature set up so as to help the facility manage it's inventory. This can be a critical issue. It can be difficult to take full advantage of the automatically generated PM work orders if the necessary items to perform the work are not available. Our system has been set up to include many of the spare parts for certain pieces of equipment listed in the inventory section. A very nice feature of this equipment/spare parts/inventory cross reference is that the system has the capability to list all necessary parts required for a particular job automatically, every time the work order is generated. This helps save countless hours of people searching for the parts list so as to determine what is needed. It also helps eliminate the errors associated with selecting the wrong parts.

As with the equipment section the user can be as detailed or as generic as desired/necessary. There are no limits as to the number of items which can be listed in the inventory.

An example of a piece of equipment and its associated parts is attached.

## **PURCHASING**

The purchasing system included in Mapcon has the ability to generate purchase orders on demand as well as automatically. Those generated automatically are done so utilizing base line data and current stock levels set up in the inventory section of the system. As of this date, Clean Harbors of Chicago is not fully utilizing this aspect of the system. It provides us with a good reference system but is not currently compatible with our existing purchasing software.

## **TRACKING**

The Mapcon software has a large number of reports which can be generated. These reports can be used to help analyze equipment history. These analysis can go towards determining whether equipment is being utilized effectively and efficiently.

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# MAPCON 95

Evaluation Copy Version 3.10 for DOS

## Installation Instructions and Quick Tour

...that provides a preview of the...  
...to print the...  
...diskette 8 into the appropriate drive. At the DOS prompt (i.e. A:\ or B:\ type) P  
...EVAL.TXT to get a test edition. Please print this at your convenience.  
...number of...  
...to print this at your convenience.

Presented By

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## INTRODUCTION

Thank you for your interest in MAPCON. MAPCON is a fully integrated Computerized Maintenance Management System (CMMS) that automates all aspects of your maintenance environment. We hope you enjoy evaluating MAPCON and welcome any comments or suggestions you may have.

The eight accompanying diskettes contain your full evaluation copy of MAPCON. Please read and abide by the "MAPCON Evaluation License Agreement" enclosed in this shipment. The Equipment and Inventory modules are limited to 50 records. This should in no way limit your ability to explore and understand the many features of MAPCON.

We suggest that your evaluation be performed in three steps.

1. This document provides a quick tour of the MAPCON system. It provides a brief explanation of the various application areas and teaches you how to navigate through the menus and screens. Once you have completed the tour, you will be able to explore the many features of MAPCON at your leisure.
2. Diskette 8 contains an ASCII file, EVAL.TXT, that provides approximately 50 pages of additional application information and tour instructions. To print the file, insert diskette 8 into the appropriate drive. At the DOS prompt (i.e. A: or B:) type "Print EVAL.TXT LPT1" or use a text editor. Please print this at your convenience and use it to further your knowledge of the system.
3. Finally, we encourage you to call 1-800-922-4DFM and ask for Evaluation Support. A knowledgeable tour guide will be assigned to answer your questions and guide you through any aspects of the system you wish to explore further. Please have your phone by your computer and have MAPCON running when you make this call.

## INSTALLATION

We recommend a 66 MHz 486 IBM compatible PC, 40 MB (System Message indicates 36 MB) of available hard disk space on a local drive (C, D or E), a High Density (1.44 MB) 3 1/2 inch disk drive and a VGA monitor to install MAPCON. A math coprocessor and/or 4 MB of memory (preferably 8 MB) configured for expanded mode will improve performance. MAPCON will run on slower machines, but will be more time consuming.

**To install the Evaluation Copy:**

Insert the diskette labeled DISK #1 in the appropriate diskette drive.

At the DOS prompt (C:), type either "A:INSTALL" or "B:INSTALL", depending on where the diskette is located. Press [Enter]. An informational screen will be presented. After you have read the screen, Press any key to continue or Press [Esc] to Exit. Answer the following screen prompts to install the evaluation system on your hard drive.

**On which disk drive do you wish to install  
MAPCON 95 3.10 Evaluation for DOS?**

Using the arrow keys, select the desired drive and Press [Enter].

**Enter the subdirectory where you want to install  
MAPCON 95 3.10 Evaluation for DOS?**

Press [Enter] if you want the default. Otherwise enter an alternate path.

MAPCON will be installed on the designated hard disk in the MAPCON95 directory. Please follow the prompts as you are asked to change diskettes.

After all eight disks have been installed the following prompt displays:

**INSTALLATION OF MAPCON 95 IS NOW FINISHED.**

**PRESS ANY KEY TO CONTINUE . . .**

In the following instructions, information to be typed in will be enclosed in quotes. Various one key commands will be enclosed in brackets, i.e. [Esc], [Enter], [F1]. Two key commands where both keys are to be pressed at the same time will be identified as [KEY1-KEY2]. For example, press [Ctrl-End] means press the [Ctrl] key and the [End] key simultaneously. Memos will be enclosed in a box.

Specific items that should be noticed will appear with a bullet in front of them.

The installation process is now complete. You should be in the directory MAPCON95.

Type "MAPCON" and press [Enter].

After the MAPCON logo screen displays the Account Sign-On Screen will appear

**Type user initials "EVL" and press [Enter].**

**Type the password "DEMO" and press [Enter].**

## THE QUICK TOUR

**You are now at the MAPCON Main Menu.**

MAPCON has an extensive security system which has the added benefit of making the system easy to use. Security can be enforced at the menu, screen and field level. Menus are restricted based on security so that users see only those menu options they are authorized to use. You are currently logged in as user EVL with full access. User PAT with password "INV" is an inventory clerk with limited access.

**Press [J] to exit from the Main Menu.**

**Type in "PAT" and press [Enter].**

**Type in "INV" and press [Enter].**

The Password field is not case sensitive. The Password can be typed in either upper or lower case.

Pat has limited security and a restricted menu has been presented.

**Press [H] to logoff as Pat.**

**Type in "EVL" and press [Enter].**

**Type in "DEMO" and press [Enter].**

**You are now back at the full MAPCON Main Menu.**

**Press [F1] to get a help message.**

Note the help message that explains how to navigate through the MAPCON menus. Read it carefully.

**Press [Esc] to clear the message.**

You may press [F1] at any time to get context sensitive help. For example, if the cursor is on an inventory screen in a field called VDU, pressing [F1] will produce a message containing an explanation that VDU stands for Vendor Distribution Unit and information about the use of the data in that field.

You may press [Esc] at any time. Pressing [Esc] will usually return the screen to the previous selection. For example, if you are three levels deep in the menus, pressing [Esc] twice will return you to the MAPCON Main Menu. Pressing [Esc] will also back you out of MAPCON screens.

The menu choices on the MAPCON Main Menu represent the application areas incorporated into MAPCON.

Following are brief descriptions of each selection from the MAPCON Main Menu.

**A. Equipment and Locations** - Manages equipment and locations to provide preventive maintenance and repairs, track costs and maintain an accurate maintenance history.

**B. Inventory** - Manages parts and materials inventory with parts reservations, reorders, issues, returns and physical counts.

**C. Purchasing** - Manages purchase requisitions, purchase orders, receiving and invoice reconciliation.

**D. Vendor/Manufacturer** - Manages vendors, manufacturers and other suppliers.

**E. Maintenance** - Manages a wide variety of work order types including preventive maintenance, repair, project, blanket, patrol and service. Control ranges from a formal initiate, plan, schedule, update and complete process, with approval at every step, to a service order which can be created and dispatched to a network printer in less than 30 seconds. MAPCON provides more detailed management of maintenance areas through the use of Zones, Project Management, Routes on PM's and Scheduling.

**F. Human Resources** - Manages a personnel database containing pay rates, craft codes, crew assignments, training, and other personnel information.

**G. Cost Accounting** - Tracks costing for work orders, inventory, purchasing, etc. Provides costing data for Accounting purposes.

**H. Administrative** - Manages standard data that is used throughout the system and provides software switches that are used to change operating modes to meet your needs.

**I. On-Line Documentation** - Easy access for help and explanations on how to operate MAPCON effectively.

Options that are available in the system but not obvious from the MAPCON Main Menu are:

**Reports** - Provides 400+ standard reports and a powerful report generator that allows creation of customized reports. These user-generated reports can easily be added to menus. A graphical report generator is also included.

**Toolbox** - Provides tools necessary to modify the security, menus, databases and screens to meet the facility's exact requirements.

## **Mouse Environment**

The following information will be applicable only if you have a mouse driver installed on the computer being used to evaluate MAPCON. If you do not have a mouse driver installed, please skip forward to the section that says "Now let's continue our quick tour" located on the following page.

MAPCON can be manipulated by using the keyboard or a mouse. The mouse environment will be started immediately, if a mouse driver is loaded on the computer that MAPCON is running on. A set of brackets ([ ]) in the upper left hand corner of menus and screens will indicate the mouse driver is activated.

**Note:** The MAPCON main menu will not display the ([ ]) because there are not any Screens or Menus that precede it.

Before we actually begin the Quick Tour, let's get used to manipulating the menus, screens and function keys by using the mouse. Often times, there is more than one way to access information using the mouse. Discussion of all possible options would be both confusing and time consuming. Please experiment along the way throughout the tour.

To make selections on a menu, move the pointer to the desired line and click the left mouse button. If the wrong menu pick was selected, click on the upper left corner to return to the previous menu.

**Move the pointer to the line that reads "Inventory Main Menu" and click the left mouse button.**

**Click on the Inventory Data Entry line to display the first data entry screen.**

**Click on the [ ] in the upper left corner to return to the Inventory Main Menu.**

**Click on the [ ] of the Inventory Main Menu to return to the MAPCON Main Menu.**

Manipulating screens is similar, but has some added capabilities.

**Click on the Equipment and Locations Main Menu.**

**Click on the Equipment Data Entry option.**

**Click twice on the "Equipment Number" field, or on the [F6] Lookup in the lower left corner of the screen, to display a selection box.**

**Click on the "Equipment Numbers" line.**

**Click on the "Main Plant (Default)" line.**

**Click on Equipment Number "A1".**

**The list can easily be scrolled up and down by clicking on either the [Up Arrow] or the [Down Arrow] on the right side of the popup.**

**Click on the "OK" that is located on the bottom border of the popup to display the data on the screen.**

**Click on the [F9] Browse Hierarchy function key to see the related pieces of equipment.**

**(Clicking on the "Next Level Equipment #" field will display a popup for equipment numbers, similar to the "Equipment Number" field.**

**Click on the ☐ in the upper left hand corner to clear the screen and return to the equipment data entry screen.**

**Click twice on the "Description" field or on the [F5] Zoom at the bottom of the screen to expand the Description field.**

**Click on the ☐ in the upper left hand corner to clear the screen and return to the equipment data entry screen.**

**Page through the screens by clicking on either the [PGUP] or [PGDN] fields on the right side of the popup.**

**Click twice on the ☐ in the upper left hand corner of the screen to clear the screen and return to the Equipment Main Menu.**

**Click on the ☐ in the upper left hand corner to clear the screen and return to the MAPCON Main Menu.**

**Additional instructions on using the mouse environment will be added later in the Quick Tour.**

**In the following pages, the keyboard instructions will be written in detail. The mouse instructions will be inserted occasionally to remind the user of the mouse capabilities**

**Now let's continue our quick tour.**

**Either press [A] or click on the Equipment and Locations Main Menu.**

**Press [A] or click on the Equipment Data Entry option.**

**This is your first look at a MAPCON Screen. Observe the informational use of color.**

**Red fields are required information. The equipment record can not be saved unless data is entered in all of the required fields. Dark blue fields are for additional data that is not**

required, but increases the validity of the record. New data can be entered or current data can be edited in either of these types of fields. Although the information in these Dark blue fields is described as optional, the more information that is filled, the more complete the record. More complete records provide for better reporting capabilities. Light blue fields are display only. On other screens, there will be Light gray fields that are browse only and are generally lists that can be scrolled down using the [Down Arrow] key. Data in the fields can not be modified from this screen in either Light blue or Light gray fields.

A list of function keys appears at the bottom of the screen. They will vary depending on the position of the cursor on the screen.

Pressing [F1] or clicking on the [F1] will always cause a help message to be displayed.

Pressing [F1] again will show what keys are active at the present time.

Pressing [F2] will save the current record or move to the next step in a process. Clicking on the [F2] with the mouse will not complete the selection process. When you are using the mouse to make selections, you must click on the "OK" on the bottom of the popup screen to indicate that you are done making selections.

MAPCON will always have a lookup attached to a field that contains a key number or code. [F6] is used throughout MAPCON to provide lists from which you may make selections.

**Press [F6] to get a lookup or click twice on the Equipment Number field. Choose the option "Equipment Number by Keyword."**

The first list presented is sorted by zone. Zones are maintenance entities to separate the equipment and cost information stored in the system. Zones are discussed more fully in the Evaluation Text that can be printed later.

**Press [Enter] or click the left mouse button to select the Main Plant (Default) Zone.**

The list is sorted alphabetically by equipment keyword

MAPCON organizes both equipment and inventory information by keywords in order to make lookup selections more efficient. The entire list of equipment will be displayed and can be viewed. You can search for a keyword by typing the complete or partial keyword.

**Type the keyword "MOTOR" and press [Enter].**

The line containing the equipment record "M-1002" will be indicated with a pointer to the left of the keyword. It will also change the color of the wording.

**Press [Enter] or click to highlight the line.**

**Press [F2] for done. Or click the [OK] in the middle of the bottom border of the popup.**

**Remember - Most functions can be done by either using the keyboard and following the step by step instructions or by using the mouse pointer and using instructions on previous pages.**

Data for Equipment # M-1002 is now retrieved from the data base. The cursor is on the "NEXT LEVEL EQP #" field. This example demonstrates a five level equipment hierarchy. Equipment # GR-1002 is the next level up from Equipment # M-1002. This means that all costs applied to Equipment # M-1002 will also "roll up" to Equipment # GR-1002. There is an [F9] function attached to this field.

**Press [F9] or click on the "Next Level Equipment #" field to see the hierarchical levels.**

The equipment is "grouped", so that costs can be accumulated and reported by group. The Equipment #'s represent types of equipment to collect costing. Some equipment items in a hierarchy could be Hydraulic Press - Compressor - Electric Motor. In this three level hierarchy, the cost of servicing the motor would also roll up to the Compressor and Hydraulic Press.

**Press [Esc] to clear the informational screen.**

**Press [Enter] until the cursor comes to rest in the "DESC" field.**

Pressing [Shift-Tab] or [Up Arrow] will back the cursor up if you overshoot.

**Hold down the X key so that a series of X's fill the "DESC" field.**

Keep the key depressed and a text editor will popup to allow the input and editing of an unlimited description.

One of the reasons MAPCON is so versatile is that it is based on variable length records. Virtually any field in MAPCON can be changed to any predefined length.

**Press [Enter] to input your changes.**

**Press [Enter] to exit the text editor and return to M-1002.**

**Press [Esc] to exit from this record.**



A warning message will prevent you from inadvertently losing your changes.

**Press [Enter] to ignore your changes and complete your exit.**

**Type "M-1002" and press [Enter]**

If you know the record key, you can enter it instead of using a lookup.

**Let's review what you have learned about navigating through MAPCON:**

- **Menus** may be accessed by pressing its letter identifier or clicking on the line with the mouse.
- **Arrow keys** move a highlight bar up and down the menus and lookup lists.
- **Menu selection** can be made by moving the highlight bar to the selection and pressing [Enter].
- **Lookup selections** can be made by moving the indicator bar to the selection and pressing [Enter] to highlight this selection. Press [F2] to retrieve the record or click the [OK] in the middle of the lower edge of the popup.
- **Red fields** are for required data.
- **Dark blue fields** are for optional, editable data. Most are optional but highly recommended.
- **Light blue fields** are display only.
- **Light gray fields** are browse only fields usually containing some list.
- **[Esc]** will always back you out to the previous screen or menu. It will let you lose changes if desired.
- **[F1]** will always display a help message.
- **[F2]** will always save a record or proceed to the next step.
- When viewing data on a screen, pressing [Enter] advances the cursor.
- Pressing [Shift-Tab], [Up Arrow] or using the mouse will move the cursor backwards.

**Remember - Most functions can be done by either using the keyboard and following the step by step instructions or by using the mouse pointer and using instructions on previous pages.**

**Let's continue on our tour...**

Notice that Equipment Data Entry is a set of five screens.

The [PageUp] and [Page Down] keys can be used to move between screens. Screens are designed in a loop to allow the user to go forward or backwards. Pressing [PAGE UP] from the first screen will display the last screen.

**Press [Page Down] or click on the [PGDN].**

MAPCON keeps track of Safety Procedures, Service Contracts and a complete bill of materials for each equipment item.

**Press [Tab] nine times.**

The cursor should be resting in the "STOCK #" field. The [F10] function is active for this field.

**Press [F10] to edit the inventory record.**

You have now "vectored" to the Inventory Data Entry screen. This illustrates another "ease of use" feature of MAPCON. You do not have to escape to the menus to move to another area in MAPCON. The [F10] key will allow you to vector to a different application area associated with the field on which the cursor is located. In this case, the Planner may have been trying to determine if a part was on hand and where it was being stored in the stockroom.

**Press [Ctrl-End] to move to the last data entry field on the screen.**

**Press [F10] to edit the stock location.**

MAPCON allows you to vector several levels deep. Pressing [Esc] will always return you along the same path that you came from.

**Press [Esc] to return to the Inventory screen.**

**Press [Esc] to return to the Equipment Data Entry screen 2.**

You have returned to the original field you vectored from, with all data left intact.

**Press [F2] to save any changes.**

**Press [Esc] twice to return to the MAPCON Main Menu.**

**Press [B] to select the Inventory Main Menu.**

**Press [A] to select Inventory Data Entry.**

**Type "M-1202" and press [Enter].**

**Press [PageDown] to go to screen 2.**

**Press [Tab] to move the cursor to the EQP # field.**

**Press [Enter] to go to a blank line.**

**Type in "P-1002" and press [Enter].**

**Press [F2] to save the record.**

**Press [Esc] twice to return to the MAPCON Main Menu.**

You have just added Stock # M-1202 to Equipment # P-1002.

**Remember -** Most functions can be done by either using the keyboard and following the step by step instructions or by using the mouse pointer and using instructions on previous pages.

Let's go check that out... Press [PageDown] to go to the second page.

**Press [A] to select the Equipment Main Menu.**

**Press [A] to select Equipment Data Entry.**

**Type in "P-1002" and press [Enter].**

**Press [PageDown] to go to page 2.**

M-1202 is now on the Bill of Materials for this piece of equipment. In MAPCON, data is entered only once and the system ties things together for you.

**Press [Esc] three times to return to the MAPCON Main Menu.**

The primary function of MAPCON is to create and control work orders. Purchasing, Inventory, Vendor, Human Resource, Equipment and Location databases all exist to support the creation and control of work orders.

Let's look at preventive maintenance scheduling.

**Press [E] to select the Maintenance Main Menu.**

**Press [D] to select the Preventive Maintenance Menu.**

**Press [A] to select PM Description Data Entry.**

You are now at the PM Description screen. Standard preventive maintenance procedures can be established and then assigned to all appropriate pieces of equipment.

**Press [F6] to get a lookup.**

**Press [Enter] on the Standard PM Descriptions selection.**

**Press [Enter] to mark PM0001.**

**Press the down arrow key once and Press [Enter] to mark PM0003.**

**Press [Enter] to mark PM0004.**

**Press [F2] to indicate that you are done selecting.**

MAPCON creates an "active list" if you select more than one item. You may cycle through the selected PM Description records by pressing [Esc] or [F2]. Press [Esc] several times to see how that works and stop when you are back to PM0001. Active lists are another of MAPCON's "ease of use" features.

**Press [PageDown] to go to the second page.**

PM work orders can be generated for Equipment, Locations, Cost Centers and Routes.

**Press [F6] to display the list of PM Codes.**

**Press [Esc] to return to PM Description Screen 2.**

Notice that the lower right hand corner of the screen clearly indicates that you are still in an active list.

**Press [Alt-E] to terminate the active list.**

The PM Frequency setup is discussed in the Evaluation Text.

**Press [Esc] twice to return to the Maintenance Main Menu.**

**Remember - Most functions can be done by either using the keyboard and following the step by step instructions or by using the mouse pointer and using instructions on previous pages.**

Now, let's look at a repair work order.

**Press [A] to select the Work Order Control Menu.**

**Press [A] to select Initiate Work Orders.**

**Press [F6] to get a work order lookup list.**

**Press [Enter] on Work Orders.**

**Press [Enter] on Main Plant (Default) Zone.**

**Press [Enter] on Initiated Work Orders.**

This list contains initiated work orders set up in this evaluation system.

**Move the cursor to the line where Work Order number "000021" is located.**

**Press [Enter] to select Work Order # 000021.**

**Press [F2] to indicate that you are done selecting.**

No active list was created because only one selection was made. This screen is used to initiate and initially authorize a work order.

**Press [Esc] three times to return to the Maintenance Main Menu.**

**Press [B] to select the Work Order Planning Menu.**

**Press [A] for the Plan Work Orders option.**

**Type in "21" and press [Enter].**

**Remember - Most functions can be done by either using the keyboard and following the step by step instructions or by using the mouse pointer and using instructions on previous pages.**

You are now in the planning phase.

**Press [Ctrl-End] to move the cursor to the last input field.**

**Press [Shift-Tab] [Shift-Tab] to back the cursor up.**

The cursor should be resting on the PROBLEM DESCRIPTION field.

Note that a typed entry has been entered in this field. You can also enter a previously defined standard problem description in this field. Let's add a standard problem to see how this works.

**Press [F6] to get a problem list.**

**Use the down arrow key to move the highlight to 00001.**

**Press [Enter] to select problem 00001.**

**Press [F2] to indicate that you are done selecting.**

[00001] has now been entered as a problem description

**Press [Shift-Tab] to return the cursor to the PROBLEM DESCRIPTION field.**

**Press [F8] to see the full definition of the standard problem entered in the PROBLEM DESCRIPTION field.**

**Press [Esc] to clear the problem definitions.**

**Press [PageDown] to go to screen 2.**

Screen two is used to assign a crew and identify tasks. A summary of all planned and actual costs are presented at the bottom of screen.

**Press [Enter]. The cursor will be in the Crew field.**

**Type 100 in the Crew field and press [Enter].**

**Type "MECH" in the Craft field and press [Enter] twice.**

**Type "Register all tagout equipment with supervisors." and press [Enter] twice.**

**Type "0.5" and press [Enter].**

**Press [PageDown] to go to screen 3.**

Screen 3 is used to assign stocked material to the work order or to cut a purchase order for non-stocked material that will be charged directly to the work order.

The cursor should be in the stock number column.

Press [F6] to get a lookup selection.

Press the [Down Arrow] to highlight the "Inventory by Keyword" option.

Press [Enter] to lookup by keyword.

Use the down arrow key to move the highlight to BOLT - N1245.

Press [Enter] to select N-1245.

Use the down arrow key to move the highlight to FILTERS - 100011

Press [Enter] to select 100011.

Press [F2] to indicate that you are done selecting.

Press [Enter] twice to move to the first line's QTY field.

Type "1" and press the down arrow key.

Type "2" and press [Enter].

Press [F2] to save the changes.

The system automatically places stock reservations and creates issue tickets for the parts inventory.

Press [Esc] to return to the Work Order Planning Menu.

Press [Esc] twice to return to the MAPCON Main Menu.

Remember - Most functions can be done by either using the keyboard and following the step by step instructions or by using the mouse pointer and using instructions on previous pages.

## Routes (H-F-G)

In addition to reactive maintenance and Preventive Maintenance on individual pieces of equipment, MAPCON provides the ability to track procedures on a list of equipment, locations, and / or cost centers that have a common maintenance function that must be performed. Each of the equipment, locations, and / or cost centers is referred to as a "Stop." A single PM work order is generated for each Route, rather than each individual "Stop."

A common use of Routes, would be a lubrication route, where several pieces of equipment must be lubricated on a regular schedule.

Routes are zoned, so only equipment or locations from a particular zone can be set up as "Stops."

Routes are setup on the "Maintain Routes" option. Let's look at a Route.

**Press [F6] to get a list of Routes.**

**Press [Enter] to select the "Main Plant (Default)" Zone.**

**Press [Enter] to select the "Lubrication Route #1".**

**Press [F2] to finish selecting and display the data.**

**Press [Enter] to move the cursor to the CD field.**

**Press [F6] to display the list of Codes.**

Each code will provide a different list of "Stops" in the reference number field. A list of equipment will be displayed with the [F6] Lookup, when an "E" is entered in the Code field, etc.

**Press [Escape] to clear the Code List.**

The Reference Number will be either a cost center, location or piece of equipment. The information in the Description field will refer back to the Reference Number field.

**Press [PageDown] to go to the second page of the record.**

#### Queries and Reports

Page 2 of the Route record holds information about Safety Procedures, the ISO-9000, any PM Description Numbers and the Route Rating.

**Press [F6] to get a list of Safety Procedures that are available to attach to the Route.**

**Press [Escape] to clear the list.**

**Press [Tab] once to the ISO-9000 field.**

If a "Y" for yes is entered here, a standard ISO-9000 reporting procedure will be printed with any work order written against this piece of equipment, location or cost center.

**Press [Tab] twice to move the cursor to the PM DESC # field.**

**Press [F6] to get a list of PM Descriptions.**

**Press [Enter] on the "Standard PM Descriptions" line.**

**Press [Escape] twice to clear the list and return to the Route screen.**



The Route Rating field is similar to the Equipment or Location Rating. It is used in conjunction with the work order priority rating to create an overall work order rating that is used to prioritize the work orders.

A "Y" is entered in the "Print Route Report with WO" field, to get a listing of the "Stops" on the Route when the Work Order is printed.

The Route Report provides a complete list of the equipment listed on the Route.

To the right are Year-To-Date and Lifetime costs for this Route.

**Press [Escape] to clear the screen and return to the Maintain Routes screen.**

**Press [Enter] to lose changes.**

**Press [Escape] three times to return to the MAPCON Main Menu.**

We have given you a brief tour of a select group of procedures in the maintenance module of MAPCON. We invite you to review the balance of the maintenance options and other areas of MAPCON at your convenience.

Before leaving the Quick Tour, let's look briefly at the reporting capabilities of MAPCON.

Click on the word **LIST** to see a list of the records if it were saved.

## **Queries and Reports**

Prior to this, we have been putting data into MAPCON. Now we are ready to retrieve that data in the form of physical lists of records and printed reports. Reports will be discussed later in the tour.

Queries provide the ability to select records that have some common trait(s). Queries are used to select and sort the records and view / edit the records on the screen only. If more than one record is selected, the records are displayed in an Active List.

Let's view a Query that will display records, in the equipment file, that were purchased from a specific vendor.

**Press [A] for the Equipment Main Menu**

**Press [A] for the Equipment Data Entry Screen.**

**Press [F10] at the Equipment Number field to get a list of predefined queries.**

**Press [Enter] or click on the Query Name "EQUIPMENT\_BY\_VENDOR".**

This query will select all equipment records that have been purchased from a vendor that have "INDUSTRIAL" in the vendor name. The records will be sorted and displayed on the Active List based on the Date Acquired in a descending order.

**Press [Enter] on Main Plant (Default) Zone.**

A message will indicate how many records meet the criteria of the query. One record will be displayed on the screen.

**Press [Escape] to display the next record in the Active List.**

All pages of the records can be accessed by using the [PageDown] or [PageUp] keys

#### **Note for Mouse Users:**

To view the next or previous record in the Active List, press either of the marks (">>>" or "<<<") surrounding the word "LIST".

**Click on the word "LIST" to see a list of the records that were selected by the query.**

**Click on the [ ] to clear the Select List and return to the Equipment Data Entry screen.**

**Click on [PGDN] or [PGUP] to view other screens in the record.**

**Click on the [ ] in the upper-left hand corner to Exit from the Active List.**

After browsing through the records, press [Alt- E] to clear the Active List.

**Press [Escape] twice to return to the MAPCON Main Menu.**

There are 400+ standard reports in MAPCON. Each major option has its own group of specialized reports. The report menu for each option is located on the last line of each option menu.

Let's look at a report that will provide information about the number of initiated work orders in the system.

**Press (E-A-M-C-A-A) from the MAPCON Main Menu to display the "Initiated Work Orders" report.**

**Press [Enter] on "Monitor". This will "print" the report to the monitor, rather than to the printer.**

**Press [F2] to select all Planned Work Orders.**

**Type in 07-01-95 on the Start Date line.**

**Press [Enter] to move the cursor to the END DATE field.**

**Type in a current date on the End Date line.**

**Press [F2] to indicate that dates are complete.**

**Press [Enter] on the Main Plant (Default) Zone line.**

**Press [F2] to start the selection process.**

The system will go through a selection process and a blue screen will be displayed with the data about the planned work orders. The page number will be displayed in the lower right hand corner of the screen. If the report has multiple pages, press [PageDown] to view other pages of the report.

**Press [Escape] to clear the report from the screen.**

**Press [Escape] five times to return to the MAPCON Main Menu.**

We are now done with the Quick Tour. As a leading CMMS, MAPCON is both extensive and comprehensive. Therefore, there are many options that were not discussed in the Quick Tour. The Quick Tour can be completed in about 3 to 4 hours, depending on the time available to devote to the evaluation of the system and the number of "Private Detours" that are made during the evaluation.

Please feel free to explore the rest of MAPCON at your convenience. Other options to explore are described in the EVAL.TXT file, that was described earlier in the documentation.

**To exit MAPCON:**

**Press [J] to select Logoff the System.**

**Press [Esc] to return to DOS.**

**Let's review the additional navigating options in MAPCON:**

- Many screens have multiple pages. You may press [PageDown] and [PageUp] to move between pages.
- Pressing [Tab] will move the cursor to the next major entry point.
- Pressing [Enter] moves the cursor through each field and through each line on fields that have multiple lines.

- Pressing [F10] will often allow you to vector to another screen without returning to the menus.
- Pressing [Ctrl-End] will move the cursor to the last data entry position on the screen.
- You may often select more than one item from a selection list. MAPCON will either enter the multiple selections directly into the record or will create an "active list" if the selections are record keys. You can browse through an active list by pressing [Esc] or [F2] or terminate an active list by pressing [Alt-E].

**Don't forget to print the EVAL.TXT file on diskette eight. This will provide additional information and instructions that will be of interest. And don't forget - a tour guide is standing by at 1-800-922-4DFM to give you any further assistance you may desire.**

Thank you for your decision to evaluate MAPCON. MAPCON is a system written by maintenance professionals, for use by maintenance professionals. We believe you will find it to be comprehensive, flexible and easy to use. We look forward to the prospect of being your CMMS provider and to the long term relationship that will evolve. Thank you again. Please give us a call.



State of Illinois

ENVIRONMENTAL PROTECTION AGENCY

*Joseph WSEB A*  
*Hak Cho*

Mary A. Gade, Director

2200 Churchill Road, Springfield, IL 62794-9276

217-524-3300

February 1, 1996

Mr. Paul A. Ahearn  
Manager, Regulatory Compliance  
Clean Harbors Environmental Services, Inc.  
1200 Crown Colony Drive  
P.O. Box 9137  
Quincy, MA 02269-9137

Re: 0316000051 -- Cook County  
Clean Harbors of Chicago, Inc.  
Log No. B-16-M-2  
RCRA Permit File

Dear Mr. Ahearn:

This letter is in response to the two documents dated August 23, 1995 that CHCI submitted in accordance with conditions G.10 and G.14 in Attachment D of CHCI's RCRA permit (Log No. B-16-M-2). These documents include the as-built drawings of the fire suppression and fire alarm systems at the CHCI facility.

In addition, the Agency received a letter from our contractor, C. March & Associates, Inc. (CMA) dated October 23, 1995. CMA concluded that the fire suppression and protection systems and equipment were capable for the CHCI site. He noted that the systems were installed and tested in accordance with the requirements of the reference codes and standards.

The Agency has reviewed the CHCI submittals and determined that they meet the requirements of condition G.10 on page D-12 of Attachment D of CHCI's RCRA permit (Log No. B-16-M-2). Subject to the conditions in the CMA letter, which CHCI addressed in the class 1 permit modification dated October 26, 1995 (Log No. B-16-M-10), the Agency approves the fire suppression and alarm systems at the site.

However, CHCI has not demonstrated compliance with condition G.14 in Attachment D of the RCRA permit. Condition G.14 required CHCI to provide the Agency verification that they had obtained any necessary approvals/reviews of the fire suppression system by the City of Chicago prior to operation of the system.

Page 2

If you have any questions regarding this letter, please feel free to call Rob Watson, P.E. at 217/524-3265.

Sincerely,



Edwin C. Bakowski, P.E.  
Manager Permit Section  
Bureau of Land

ECB:WRW:bjh<sup>W</sup>963352.WPD  
wpw

cc: Matt Dunn, IAG  
Hak Cho, USEPA - Region V  
Tony Martig, USEPA - Region V, TSCA  
Jim Laubsted, CHCI



State of Illinois  
**ENVIRONMENTAL PROTECTION AGENCY**

Mary A. Gade, Director

2200 Churchill Road, Springfield, IL 62794-9276

217-524-3300

January 31, 1996

Mr. Paul A. Ahearn  
Manager, Regulatory Compliance  
Clean Harbors Environmental Services, Inc.  
1200 Crown Colony Drive  
P.O. Box 9137  
Quincy, MA 02269-9137

Re: 0316000051 -- Cook County  
Clean Harbors of Chicago, Inc.  
Log No. B-16-M-2  
Administrative Record

Dear Mr. Ahearn:

This letter is in response to the information dated August 17, 1995 that CHCI submitted in response to condition G.7 on page D-12 in Attachment D of CHCI's RCRA permit (Log No. B-16-M-2). This document contains a series of scale drawings that show the locations of the satellite and accumulation areas at the CHCI facility.

The Agency has reviewed the submittal identifying the locations of the satellite and accumulation areas and determined that it meets the requirements of condition G.7 on page D-12 in Attachment D of CHCI's RCRA permit (Log No. B-16-M-2).

Satellite and accumulation areas may only be used for the management of on-site generated wastes such as tank bottoms resulting from the clean-out of the on-site tanks. These activities must be conducted in accordance with the requirements of 35 IAC 722.134. If the satellite or accumulation area is located within a unit regulated by the RCRA permit, the management of wastes or other materials in that satellite or accumulation area is prohibited unless all of the RCRA permit conditions associated with that unit are met. For example, CHCI can not place drums in units that are permitted for trucks or tanks, unless this activity is specifically authorized by the permit.

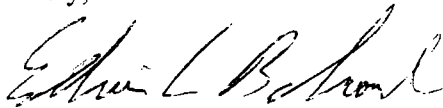
Satellite and accumulation areas which are outside of the permitted areas must be located in a manner which does not impact the operations of RCRA permitted units or block access to these units for daily operations or emergencies.

Page 2

CHCI must be able to document that the requirements of 35 IAC 725.211 and 725.214 are met when CHCI stops using (eg. closes) a satellite or accumulation area. Therefore, in addition to maintaining current scale drawings of all active satellite and accumulation areas, CHCI's operating record must identify the locations of all the satellite and accumulation areas at the site that have been closed, the dates they were closed, and a description of how they were closed.

If you have any questions regarding this letter, please feel free to call Rob Watson, P.E. at 217/524-3265.

Sincerely,



Edwin C. Bakowski, P.E.  
Manager Permit Section,  
Bureau of Land

<sup>TJD</sup>  
ECB:WRW:bjh\963411.WPD

cc: Matt Dunn, IAG  
Hak Cho USEPA - Region V  
Tony Martig, USEPA - Region V, TSCA ✓  
Jim Laubstead, CHCI





State of Illinois

# ENVIRONMENTAL PROTECTION AGENCY

Mary A. Gade, Director

2200 Churchill Road, Springfield, IL 62794-9276

217-524-3300

January 19, 1996

Mr. Paul A. Ahearn  
Manager, Regulatory Compliance  
Clean Harbors Environmental Services, Inc.  
1200 Crown Colony Drive  
P.O. Box 9137  
Quincy, MA 02269-9137

Re: 0316000051 -- Cook County  
Clean Harbors of Chicago, Inc.  
Log No. B-16-M-2  
Administrative Record

Dear Mr. Ahearn:

This letter is in response to the information dated November 1, 1995 that CHCI submitted in response to condition I.K.2 on page I-16 of CHCI's RCRA permit (Log No. B-16-M-2). This document is a P.E. certification of the fire suppression system for the Lab Pack Consolidation Station in the northeast corner of Building 26.

The Agency has reviewed the submittal and determined that it meets the requirements of condition I.K.2 on page I-16 of CHCI's RCRA permit (Log No. B-16-M-2).

If you have any questions regarding this letter, please feel free to call Rob Watson, P.E. at 217-524-3265.

Sincerely,

Edwin C. Bakowski, P.E.  
Manager Permit Section,  
Bureau of Land

ECB:WRW:bjh963503.WPD  
*WRW*

cc: Matt Dunn, IAG  
Hak Cho USEPA - Region V  
Tony Martig, USEPA - Region V, TSCA✓  
Jim Laubstead, CHCI



ENVIRONMENTAL SERVICES, INC.

11800 SOUTH STONY ISLAND AVENUE • CHICAGO, ILLINOIS 60617  
(312) 646-6202 • FAX (312) 646-6381

cc: Maywood  
USEPA  
Rejo

TJ  
MT

Certified Mail #P350678895

January 9, 1996

Mr. Mark Schollenberger, P.E.  
Environmental Protection Engineer  
Illinois Environmental Protection Agency  
Bureau of Land  
2200 Churchill Road  
P.O. Box 19276  
Springfield, IL 62794-9276

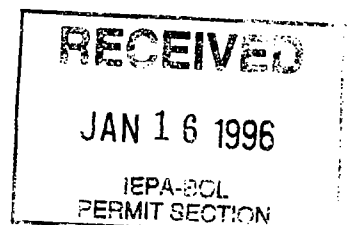
Re: January 5, 1996 Incident  
24-hr Report

Dear Mr. Schollenberger:

In accordance with Standard Condition VI.19 of RCRA Part B Permit Log B-16, Clean Harbors of Chicago, Inc. ("Clean Harbors") is submitting this written report under the twenty-four hour reporting requirements for noncompliance with the permit which may endanger human health or the environment. Clean Harbors is the operator of the facility at the above address.

On January 5, 1996, a trouble alarm alerted an employee to check the battery chargers on the diesel operated fire suppression system pump at the facility. The battery chargers serve as a back-up power supply to the fire suppression system and would provide power to the pump in the event of a power outage at the facility.

When the battery chargers were checked, it was discovered that a fuse had blown on the first of the two battery chargers for the pump. The second charger and batteries were also checked and were not affected. When an employee attempted to replace the blown fuse, he noted that the fuse holder was damaged and would need replacement. To replace the fuse holder, system deactivation was required. I notified you when we learned that the fire suppression system would be deactivated.





The system was shutdown at 3:30 P.M for repairs. The fuse holder and fuse were replaced, and those batteries were recharged. The repair was completed at 5 P.M. During this incident, no operations were occurring in any area covered by the fire protection system.

I reported this incident orally to you and to Charles Gruntman at IEPA's Maywood office.

There were no hazardous substances released due to or during the incident. The incident did not cause damage to the environment or human health. There were no injuries involved with the incident.

If you have any further questions, please contact me at (312) 646-6202.

Sincerely,

A handwritten signature in cursive script, reading "James R. Laubsted".

James R. Laubsted

James R. Laubsted  
Facility Compliance Manager



ENVIRONMENTAL SERVICES, INC.

11800 SOUTH STONY ISLAND AVENUE • CHICAGO, ILLINOIS 60617

(312) 646-6202 • FAX (312) 646-6381

Via fax to Gary Schafer (312)886-0753

January 5, 1996

Regional Administrator  
U.S. Environmental Protection Agency  
Region V  
230 South Dearborn Street  
Chicago, IL 60604

Dear Sir:

Clean Harbors of Chicago, Inc. ("Clean Harbors") is notifying USEPA under the twenty-four hour reporting requirements for noncompliance which may endanger human health or the environment. Due to the partial government shutdown, I have not been able to contact anyone from the RCRA section. I did make contact with Gary Schafer. I described the situation and am faxing this message to him. He agreed to pass it on to the RCRA section.

The incident involves the diesel fire pump of the fire protection system at the facility. A blown fuse caused the pump system to revert to the battery back-up system. When an employee attempted to replace the fuse, he noted that the fuse holder was damaged. To replace the fuse holder the system must be deactivated. During this time, all operations will cease in affected areas. The replacement and battery recharging is expected to require one to two hours to complete.

Clean Harbors will submit a written report to the Agency as required within five days.

If you have any further questions, please contact me at (312)646-6202.

Sincerely,

A handwritten signature in cursive script that reads "James R. Laubsted".

James R. Laubsted  
Facility Compliance Manager



Mary A. Gade, Director

2200 Churchill Road, Springfield, IL 62794-9276

217-524-3300

December 28, 1995

Mr. Paul A. Ahearn  
Manager, Regulatory Compliance  
Clean Harbors Environmental Services, Inc.  
1200 Crown Colony Drive  
P.O. Box 9137  
Quincy, MA 02269-9137

Re: 0316000051 -- Cook County  
Clean Harbors of Chicago, Inc.  
Log No. B-16-M-2  
Administrative Record

Dear Mr. Ahearn:

This letter is in response to the information dated September 1, 1995 that CHCI submitted in response to condition I.E.8 on page I-7 of CHCI's RCRA permit (Log No. B-16-M-2). These documents described the procedures for managing waste compressed gases at the site.

In accordance with condition I.E.8, the Agency has reviewed CHCI's procedures for the receipt and management of waste compressed gases dated September 1, 1995. Because these procedures must still be consistent with the procedures specified in the RCRA permit, some of the activities proposed in the September 1, 1995 documents would require CHCI to modify your RCRA Part B permit. Specifically, the RCRA permit requires that containers (other than roll-off-boxes) be stored on pallets. It also specifies where the pallets can be placed. Therefore, in order to comply with the RCRA permit and the compressed gas cylinder procedures, all cylinders of waste compressed gas must be kept in cages or chained to pillars or walls, and they must be on pallets in the arrangements specified on the drawings in the RCRA permit. The storage of wastes without pallets, or in locations that are not specified in the permit would require a class 2 permit modification.

Also, during this review, it was noted that an "approved aerosol can compactor unit" is shown on Drawing 4210, sheet 1 of 3 (2916-M-04). An aerosol can compactor would be considered a miscellaneous unit subject to 35 IAC 724 Subpart X. The RCRA permit does not include, and the application does not describe, the treatment of waste compressed gases at the facility. Therefore, CHCI is only permitted to store aerosol cans and cylinders of waste compressed gas. CHCI is not permitted to open, empty or crush cylinders or aerosol cans of waste compressed gas. Construction and operation of a can crusher would require a class 3 permit modification.

**Compressed Gases at CHCI**  
**Page 2**

Therefore, with the exceptions noted above, the procedures for managing waste compressed gases discussed in this letter are consistent with the RCRA permit, and can be used at the CHCI facility.

Finally, the revised Contingency Plan submitted as part of this submittal will be addressed as a class 1 modification at a later date.

If you have any questions regarding this letter, please feel free to call Rob Watson, P.E. at 217/524-3265.

Sincerely,

*Edwin C. Bakowski*  
by JHK

Edwin C. Bakowski, P.E.  
Manager, Permit Section  
Bureau of Land

ECB:WRW:bjh\95181.WPD

cc: Matt Dunn, IAG  
Hak Cho, USEPA - Region V  
Tony Martig, USEPA - Region V, TSCA ✓  
Jim Laubstead, CHCI



State of Illinois

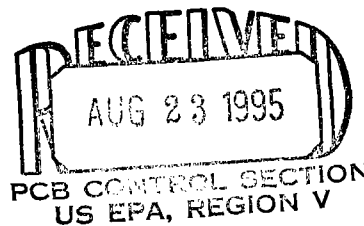
# ENVIRONMENTAL PROTECTION AGENCY

Mary A. Gade, Director

2200 Churchill Road, Springfield, IL 62794-9276

217-524-3300

August 17, 1995



Mr. Paul A. Ahearn  
Manager, Regulatory Compliance  
Clean Harbors Environmental Services, Inc.  
1200 Crown Colony Drive  
P.O. Box 9137  
Quincy, MA 02269-9137

0316000051 -- Cook County  
Clean Harbors, Inc.  
Log No. 16-TA-2, B-16-M-2  
Administrative Record

Dear Mr. Ahearn:

This letter is in response to your letter dated August 11, 1995 and received the same day via fax to withdraw the April 24, 1995 request for a Temporary Authorization (TA) to operate the modified CHCI facility prior to the effective date of the RCRA permit. The Agency has withdrawn the Temporary Authorization request Log No. 16-TA-2.

If you have any questions regarding this letter, please feel free to call Rob Watson, P.E. at 217-524-3265.

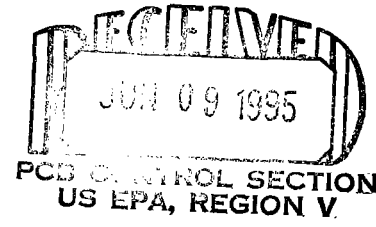
Sincerely,

Edwin C. Bakowski, P.E.  
Manager Permit Section,  
Bureau of Land

ECB:WRW:chi\letter95\08ta95.ecb

cc: Matt Dunn, IAG  
George Hamper, USEPA - Region V  
Tony Martig, USEPA - Region V, TSCA✓

*Martig*



1200 CROWN COLONY DRIVE, P.O. BOX 9137 • QUINCY, MA 02269-9137  
(617) 849-1800

Via Federal Express

June 3, 1995

Mr. Robert Watson, P.E.  
Illinois Environmental Protection Agency  
Division of Land Pollution Control -- #24  
Permit Section  
2200 Churchill Road  
Post Office Box 19276  
Springfield, IL 62794-9276

Re: Clean Harbors of Chicago, Inc.  
Log No. B-16-M-2  
Comments on Draft Part B Permit

Dear Mr. Watson:

Enclosed please find one (1) original and one (1) copy of Clean Harbors of Chicago, Inc.'s. (CHCI's) comments and supporting information on the Draft Part B Permit issued by the Agency on March 17, 1995. These comments are a finalized version to the draft comments submitted to the Agency by facsimile on April 11, 1995.

Please note that today's comments are in addition to the groundwater monitoring/corrective action comments submitted previously to the Agency under cover letter dated April 13, 1995.

If you have any questions, please feel free to contact me at (617) 849-1800, extension 4473.

Sincerely,

Paul A. Ahearn  
Manager, Regulatory Compliance

Enclosures

cc: Stephen Pozner, V.P., Compliance and Health & Safety, CHESI  
Anton Martig, USEPA (Letter Only) (Certified Mail Z 763 607 970)





ENVIRONMENTAL SERVICES, INC.

1200 CROWN COLONY DRIVE, P.O. BOX 9137 • QUINCY, MA 02269-9137  
(617) 849-1800

Via Federal Express

May 10, 1995

Mr. Anthony Martig  
United States Environmental Protection Agency  
Region V  
77 West Jackson Boulevard  
Chicago, IL 60604-3590

Re: Clean Harbors of Chicago, Inc.  
RCRA Part B License Request  
for Permit Modification

Dear Mr. Martig:

Per your request, enclosed please find one (1) copy of the Clean Harbors of Chicago, Inc. RCRA Part B License Request for Permit Modification dated July 15, 1994 as submitted to Illinois Environmental Protection Agency (IEPA).

Please be advised that the enclosed copy incorporates all changes submitted to IEPA as of this date.

If you have any questions, please feel free to contact me at (617) 849-1800, extension 4473.

Sincerely,

Paul A. Ahearn  
Manager, Regulatory Compliance

cc: Stephen Pozner, Sr. V.P., Compliance and Health & Safety, CHESI

Enclosures



State of Illinois

# ENVIRONMENTAL PROTECTION AGENCY

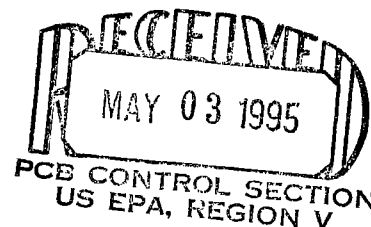
Mary A. Gade, Director

2200 Churchill Road, Springfield, IL 62794-9276

217-524-3300

April 28, 1995

Mr. Brian Kaplan  
RCRA Permitting  
USEPA, Region IV  
345 Courtland Street  
Atlanta, GA 30365



RE: 0316000051 -- Cook County  
Clean Harbors of Chicago, Inc.  
Log No. B-16-M-2  
RCRA Permit File

Dear Mr. Kaplan:


This letter is a follow up to a telephone call Rob Watson had with you on April 25, 1995 regarding the various studies which were conducted at the CWM Chicago Incinerator. Specifically, the Hazard and Operability Study [HAZOP] which was conducted at the CWM Chicago Incinerator.

The purpose of the HAZOP was to improve the design and operation of the CWM Chicago Incinerator facility. Part of the HAZOP Report is a table of recommendations for modifying the existing facility design, construction, maintenance, and/or operating procedures. I have enclosed a copy of the cover letter, table of contents, and the recommendations from the Final HAZOP Report dated November 23, 1993.

A draft RCRA permit for the Clean Harbors of Chicago, Inc. (CHCI) facility to incorporate the CWM facility was issued on March 17, 1995. A condition of the RCRA permit requires CHCI to submit a closure plan for the incinerator following issuance of the final permit.

If you have any questions regarding this letter, please feel free to call Rob Watson, P.E. at 217-524-3265.

Sincerely,

  
Harry A. Chappel, P.E.  
Hazardous Waste Branch Manager  
Permit Section, Bureau of Land

HAC:WRW

ENCLOSURE

cc: Matt Dunn, IAG  
George Hamper, USEPA, Region V  
Tony Martig, USEPA, Region V (SP-14J)✓



1200 CROWN COLONY DRIVE, P.O. BOX 9137 • QUINCY, MA 02269-9137  
(617) 849-1800

Via Facsimile and Certified Mail/Return Receipt Z 393 813 946

April 13, 1995

Mr. Robert Watson, P.E.  
Illinois Environmental Protection Agency  
Division of Land Pollution Control -- #24  
Permit Section  
2200 Churchill Road  
Post Office Box 19276  
Springfield, IL 62794-9276

Re: Clean Harbors of Chicago, Inc.  
Log No. B-16-M-2  
Draft RCRA Part B Permit - Corrective Action Provisions

Dear Mr. Watson:

Clean Harbors of Chicago, Inc. (CHCI) is pleased to submit the attached comments in response to the Corrective Action provisions contained in the draft RCRA Part B permit issued by the Agency on March 17, 1995.

If you have any questions, please feel free to contact me at (617) 849-1800, extension 4473.

Sincerely,

Paul A. Ahearn  
Manager, Regulatory Compliance

Enclosure

cc: James Moore, IEPA  
Anton Martig, USEPA (Letter Only) Z 393 813 947  
Jules Selden, Esq., CHESI  
Stephen Pozner, V.P., Compliance and Health & Safety, CHESI



1200 CROWN COLONY DRIVE, P.O. BOX 9137 • QUINCY, MA 02269-9137  
(617) 849-1800

Via Federal Express

March 13, 1995

Mr. Robert Watson, P.E.  
Illinois Environmental Protection Agency  
Division of Land Pollution Control -- #24  
Permit Section  
2200 Churchill Road  
Post Office Box 19276  
Springfield, IL 62794-9276

Re: Clean Harbors of Chicago, Inc.  
Log No. B-16-M-2  
RCRA Part A Form - Correction

Dear Mr. Watson:

As we discussed earlier today, Clean Harbors of Chicago, Inc. (CHCI) has identified an error on the RCRA Part A Form which was submitted as part of its Request for Permit Modification to incorporate certain non-incinerator assets at the CWM Chemical Services, Inc. (CWMCSI) facility in Chicago, IL.

Specifically, CHCI has identified four (4) hazardous waste codes which were inadvertently omitted from the form. The four codes are F002, K064, K065, and K066. CHCI notes that under the terms of the current CHCI RCRA Part B permit, each of these codes is authorized for storage and transfer (S01/S02), removal of liquids from solids in containers (process code T04A), and waste compaction in containers (process code T04B). In addition, waste code F002 is authorized for hazardous waste fuels blending (process code T04C) and listed waste treatment (process code T01A).

Under this Permit Modification, CHCI seeks to re-authorize each code for the currently-permitted activities described above. In addition, CHCI seeks to authorize each code for the following additional treatment processes:

- T04E - Commingling of D002 liquids in tanks/containers
- T04F - Dilution of organic peroxides in containers
- T04G - pH adjustment of acid-cyanides in containers
- T04H - Phase separation in tanks/containers



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(617) 849-1800

Via Federal Express

February 27, 1995

Mr. Robert Watson, P.E.  
Illinois Environmental Protection Agency  
Division of Land Pollution Control -- #24  
Permit Section  
2200 Churchill Road  
Post Office Box 19276  
Springfield, IL 62794-9276

Re: Clean Harbors of Chicago, Inc.  
Log No. B-16-M-2  
Corrections to Tables D-5 and D-6

Dear Mr. Watson:

In response to your comments, Clean Harbors of Chicago, Inc. (CHCI) has reviewed and corrected Tables D-5 and D-6 of its Application to Request a Class 3 Permit Modification.

Enclosed please find five (5) sets of corrected loose leaf pages to be inserted into the Application. Each set includes:

1. Table D-5 (second page), Section D Table Page 11; and
2. Table D-6 (second page), Section D Table Page 13.

Per you comments, Section D in each table has been revised to amend the Item Numbers assigned to each tank for consistency with the latest revised tank farm drawings. The revised pages are marked with the revision date "02/27/95".



Mr. Robert Watson, P.E./IEPA  
February 27, 1995  
Page 2

Also per your request, enclosed please find 1 (one) additional set of copies of Tables D-7 and D-8 for your records.

If you have any questions, please do not hesitate to contact me at (617) 849-1800, extension 4473.

Sincerely,

A handwritten signature in cursive script, reading "Paul A. Ahearn". The signature is fluid and extends to the right with a long, sweeping tail.

Paul A. Ahearn  
Manager, Regulatory Compliance

cc: Stephen Pozner, V.P., Compliance and Health & Safety, CHESI  
Anton Martig, USEPA (letter only)

Enclosures



ENVIRONMENTAL SERVICES, INC.

1200 CROWN COLONY DRIVE, P.O. BOX 9137 • QUINCY, MA 02269-9137  
(617) 849-1800

Via Federal Express

February 10, 1995

Mr. Robert Watson, P.E.  
Illinois Environmental Protection Agency  
Division of Land Pollution Control -- #24  
Permit Section  
2200 Churchill Road  
Post Office Box 19276  
Springfield, IL 62794-9276

Re: Clean Harbors of Chicago, Inc.  
Log No. B-16-M-2  
Request for Permit Modification -- Modified Tank Farm

Dear Mr. Watson:

As we discussed during our meeting on February 2, 1995, Clean Harbors of Chicago, Inc. (CHCI) is proposing to make some minor changes to the design and operation of the modified Tank Farm (Unit 16) located at the CWM Chemical Services, Inc. facility. These modifications are being made in anticipation of CHCI's acquisition and use of certain non-incinerator assets located at the CWMCSI hazardous waste facility located on property adjacent to the CHCI facility.

This package consists of five (5) sets of one revised and one new design drawing, including:

1. (Revised) CHCI Drawing 4215 - Modified Flammable Storage Tank Farm Details, Sheet 1 of 2 (Revision E); and
2. (New) CHCI Drawing 4215 - Modified Flammable Storage Tank Farm & Pump House Details, Sheet 2 of 2 (Revision B).

The modifications shown on these drawings are intended to improve the overall operation and maintenance of the Tank Farm. The modification include:

1. The addition of a new enclosed pump house building inside the eastern end of the Tank Farm in an area which currently serves as part of the Tank T-112 secondary containment basin. The pump house shall contain the pumps, motors, and related equipment used to service the Tank Farm. The building shall be heated and equipped with appropriate fire protection.



Robert Watson, P.E./IEPA  
February 10, 1995  
Page 2

2. The final placement of the Tank Farm Operations Center in a location adjacent to the Pump House at the southeast corner of the Tank Farm. The Operation Center shall house the pump control panel, the tank monitoring instrumentation panel, and emergency alarm system.
3. The relocation of the following equipment:
  - a. the vapor phase carbon canisters to a new position ; and
  - b. the in-line basket strainers to a new position on the secondary contained truck pad adjacent to the Tank Farm;
  - c. the general piping layout within the Tank Farm.
4. A new secondary containment system for Tank 112 which is free of all pumps, motors, and other equipment shown on previous drawings.
5. A slightly higher secondary containment wall for Tank T-103 & Tank T-104.
6. Revised secondary containment calculations.

Please note that certain changes (e.g., piping layout) shall be shown in greater detail on additional drawings to be submitted to the Agency shortly. In addition, CHCI is currently reviewing the text of the Application, and shall make any necessary revisions to incorporate these modifications.

If you have any questions, please do not hesitate to contact me at (617) 849-1800, extension 4473.

Sincerely,

A handwritten signature in black ink, reading "Paul A. Ahearn". The signature is written in a cursive, flowing style with a long horizontal line extending from the end.

Paul A. Ahearn  
Manager, Regulatory Compliance

cc: Stephen Pozner, V.P., Compliance and Health & Safety, CHESI  
Anton Martig, USEPA (letter only) (Cert. Mail Z 393 813 591)

Enclosures

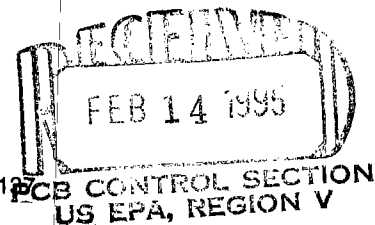


*Mailing*

# Clean Harbors

ENVIRONMENTAL SERVICES, INC.

1200 CROWN COLONY DRIVE, P.O. BOX 9137 • QUINCY, MA 02269-9137  
(617) 849-1800



Via Federal Express

February 8, 1995

Mr. Robert Watson, P.E.  
Illinois Environmental Protection Agency  
Division of Land Pollution Control -- #24  
Permit Section  
2200 Churchill Road  
Post Office Box 19276  
Springfield, IL 62794-9276

Re: Clean Harbors of Chicago, Inc.  
Log No. B-16-M-2  
Response to Notice of Deficiency - Section E

Dear Mr. Watson:

Clean Harbors of Chicago, Inc. (CHCI) has prepared and is pleased to submit the enclosed response to the Agency's December 6, 1995 Comments on Section E of CHCI's Request for Class Permit Modification. The permit modification request was made in July 1994 in anticipation of CHCI's acquisition of certain non-incinerator assets located at the CWM Chemical Services, Inc. hazardous waste facility located on property adjacent to the CHCI facility.

This response package includes five (5) copies of a 5-volume set which contains the following:

1. Volume 5A: A new 3-ring binder which contains Appendix E-6 (first of three parts).
2. Volume 5B: A new 3-ring binder which contains Appendix E-6 (first of three parts).
3. Volume 5C: A new 3-ring binder which contains Appendix E-6 (first of three parts).
4. Volume 5D: A new 3-ring binder which contains existing Appendix E-7 (which has moved from its previous position in existing Volume 5) and new Appendices E-8 through E-14. The new appendices contain information being submitted in response to specific IEPA comments; and



State of Illinois

# ENVIRONMENTAL PROTECTION AGENCY

Mary A. Gade, Director

2200 Churchill Road, Springfield, IL 62794-9276

217-524-3300

July 28, 1995

Mr. Bob LaBoube  
Director of Regulatory Affairs and  
Special Projects  
Chemical Waste Management  
3001 Butterfield Road  
Oak Brook, IL 60521

Re: 0316000058 - Cook County  
CWM Chemical Services, Inc  
Chicago Incinerator  
RCRA Permit File

Dear Mr. LaBoube:

This letter is in response to your letter to Bill Child regarding the transfer of operational control and RCRA operating record requirements at the CWM Chicago Incinerator. A copy of this letter dated December 15, 1995 was received via fax on May 26, 1995.

The Agency understands CWM's request to segregate and maintain control of the records from the old CWM facility. However, the Agency cannot approve this proposal because it does not comply with the requirements of 35 Ill. Adm. Code 725.173.

Paragraph a) of 35 IAC 725.173 clearly states that the owner or operator shall keep a written operating record at the facility (emphasis added). Paragraph b) of 35 IAC 725.173 states that the information in the operating record must be maintained until closure of the facility. CWM's letter does not indicate how the proposal will comply with these regulations. Therefore, the operating record developed during the previous operations at the site must remain at the facility in accordance with the regulations and Clean Harbors must assume the responsibility for maintaining it.

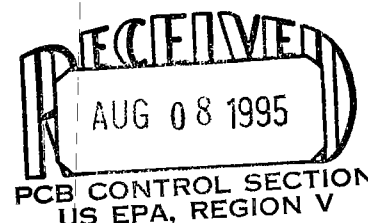
If you have any questions regarding this letter, please feel free to call Rob Watson, P.E. at 217-524-3265.

Sincerely,

Edwin C. Bakowski, P.E.  
Manager, Permit Section  
Bureau of Land

ECB:WRW:chi\letter95\07cwm.ecb

cc: George Hamper, USEPA Region V, RCRA  
Tony Martig, USEPA Region V, TSCA ✓  
Paul Ahearn, Clean Harbors  
Joseph McNally, Clean Harbors  
John Connolly, CWM



## TANKS

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## 1. INTRODUCTION

Tanks are widely used for storage or accumulation of hazardous waste because they can accommodate huge volumes, sometimes in the tens of thousands of gallons. Tanks are also used for the treatment of hazardous waste because of their structural strength and versatility. Tanks, when used to contain hazardous waste at treatment, storage and disposal facilities (TSDFs), must be in compliance with the regulations set forth in 40 CFR Part 264/265, Subpart J. Generators using tanks as primary management units for accumulating hazardous wastes also must follow the interim status tank regulations in Part 265. The extensive use of tanks at TSDFs and facilities generating waste means there is a huge regulated community that must comply with the standards for hazardous waste tanks.

After completing this module, you will be able to explain why and how Subpart J regulations apply to tanks holding hazardous waste. Specifically, you will be able to:

- Identify, based on tank contents and operation, tanks that are regulated under Part 264/265, Subpart J
- Define specific terms pertaining to hazardous waste tanks, and provide accurate CFR or Federal Register citations
- Distinguish "new tanks" from "existing tanks" and identify how this status affects applicable regulations
- Discuss secondary containment requirements for liners, vaults, and double-walled tanks, as well as secondary containment for ancillary equipment
- Identify which of the hazardous waste tank requirements were promulgated under the Hazardous and Solid Waste Amendments (HSWA) and non-HSWA authority and explain how each applies in authorized and unauthorized states.

## 2. REGULATORY SUMMARY

In addition to the general facility operating requirements set out in Part 264/265, Subparts A through E, hazardous waste management facilities must comply with unit-specific regulations set out in Part 264/265, Subpart J. The tank regulations were promulgated under two different sets of rulemakings. The original hazardous waste tank regulations were promulgated on May 19, 1980, for interim status tank systems, and on January 12, 1981, for permitted hazardous waste tank systems. These rulemakings applied only to aboveground tank systems and underground tanks that could be entered for inspection. On July 14, 1986, new regulations were promulgated for underground hazardous waste tanks that could not be entered for inspection, broadening the regulatory scope of the program under a HSWA mandate (§3004(w)). The 1986 regulations also required that new tank systems be equipped with an approved leak detection system, addressing the HSWA requirement in §3004(o)(4).

With the new regulations, EPA significantly altered the hazardous waste tank requirements in Subpart J of Part 264/265. Currently, the key elements of the hazardous waste tank program focus on:

- Proper installation, operation, and inspection of hazardous waste tank systems
- Maintaining the integrity of the primary containment system
- Secondary containment and monitoring to detect leaks from the primary containment vessel
- Adequate response to releases of hazardous wastes
- Proper closure and post-closure care of tank systems.

Each of these elements will be discussed in further detail in this module. As each section is addressed, bear in mind that many of the relevant terms have regulatory definitions under §260.10. This module will periodically note often-used terms with regulatory definitions, but not all are cited.

### 2.1 APPLICABILITY

Unless exempted from regulation under §§264/265.1, owners and operators of treatment or storage facilities with hazardous waste tank systems are subject to regulation under Part 264/265, Subpart J. Generators accumulating hazardous waste in accumulation tank systems are subject to the interim status provisions in Part 265,

Subpart J (see the module entitled Generators). Tank systems consist of three parts: the tank itself, the ancillary equipment (i.e., any equipment which conveys waste to and from the tank), and any containment system.

Tanks are simply receptacles for holding hazardous waste. The distinguishing feature of tanks is that they are stationary while in use. Tanks must also be constructed of man-made materials such as metal or fiberglass, rather than dirt, distinguishing tanks from land-based units, such as surface impoundments. Sumps, which are essentially man-made reservoirs built into the ground and designed to capture waste from troughs or trenches, can qualify as tanks. Tanks or sumps are often used to capture waste from drip pads. These tanks must also comply with the standards under Part 264/265, Subpart J.

## 2.2 DESIGN REQUIREMENTS

The design requirements for hazardous waste tanks vary according to whether a tank is new or existing and whether it is in interim status or fully permitted. For most hazardous waste units, the terms "existing" and "new" normally correspond directly to the terms "interim status" and "permitted." With hazardous waste tanks, however, this is not the case. The distinction between existing and new tanks does not determine whether a tank is regulated under Part 264 or Part 265, but instead indicates when secondary containment systems should be installed. EPA uses these terms separately because two different sets of regulations significantly affected hazardous waste tanks. Each set needed to distinguish between tank systems in existence prior to the effective date and new tank systems installed subsequent to the effective date.

As discussed in the summary, the Part 264/265, Subpart J, requirements were originally promulgated in a May 19, 1980, Federal Register (45 FR 33200) for interim status tanks and January 12, 1981, (46 FR 2831) for permitted tanks. Tanks holding hazardous waste before the effective date of those regulations were designated as interim status tanks. All other tanks needed a permit to hold hazardous waste. The regulations for hazardous waste tanks were significantly amended in a July 14, 1986, Federal Register (51 FR 25422). Tanks holding hazardous waste before the effective date of the amendments were designated as existing tanks. New tanks were defined as tanks that started holding hazardous waste after the effective date of the July 14, 1986, rule. New tanks include reinstalled and replacement tank systems or components. Accordingly, separate requirements for existing and new tanks are discussed in both the permitted and interim status tank regulations.

## SYSTEM INTEGRITY: ASSESSMENT OF EXISTING TANKS

Most existing tanks (i.e., tanks in existence on or before July 14, 1986) do not have to meet the technical standards for new tanks until the tank system is 15 years old. In order to ensure the tank's structural integrity in the interim, §§264/265.191 require all existing tanks without secondary containment to be assessed for leakage and overall fitness for use. All existing systems must have been assessed by January 12, 1988. Tanks that become newly regulated after July 14, 1986 (e.g., tanks holding newly listed wastes), must be assessed within 12 months from the date the tank became regulated.

Integrity assessments of existing tanks must verify that the tank was designed and maintained to contain the wastes stored or treated therein without failing, collapsing, or rupturing. Factors to be considered include original design standards, the age of the unit, corrosion protection measures in place, compatibility of the unit with the hazardous wastes involved, and results of leak tests or inspections of the tank. The written assessment results must be certified by an independent, qualified, registered, professional engineer and placed in the facility's file (§§264/265.191(a)).

## NEW TANK STANDARDS

In order to ensure that a tank system can hold hazardous waste for its intended lifetime, EPA subjects all new tank systems and components to the design and installation requirements in §§264/265.192. Corrosion protection measures are also mandatory for certain new tank systems and components. Remember, the phrase "new tank system" includes reinstalled and replacement tank systems or components.

## INSTALLATION

The tank system or component must be designed with an adequate foundation, structural support, and corrosion protection to prevent collapse, rupture, or failure of the unit. Seams and connections must be sealed adequately and pressure controls must be installed if necessary to prevent tank rupture or explosion. Owners and operators must submit a written design assessment attesting to the structural integrity of the tank. The design assessment must be reviewed and certified by an independent, qualified, registered, professional engineer and must be kept on site (§§264/265.192).

Because even the most flawlessly designed tanks can fail if installed improperly, new tank systems must be inspected prior to use by an independent qualified expert to ensure that no damage to the integrity of the tank occurred during installation (§§264/265.192(b)). Should damage occur during the course of installation, the owner and operator must correct the problem before the installation is complete or the system is in use. All new tanks and ancillary equipment must be tested for tightness, and any leaks discovered must be remedied before the tanks are covered, enclosed, or placed in use.

## CORROSION PROTECTION

New tank systems or components made wholly or partly of metal must be designed and installed with adequate corrosion protection if the system will be in contact with soil or water (§§264/265.192(f)). Pursuant to this requirement, the written design assessment must include site-specific data on various factors that can affect the corrosion rate of the tank (e.g., soil moisture content and pH), as well as measures taken to protect the system against corrosion (§§264/265.192(a)(3)(i) and (ii)). Use of one or more of the following corrosion protection methods is required:

- Construction materials that are corrosion-resistant
- Corrosion-resistant coating in combination with cathodic protection
- Electrical isolation devices.

Cathodic protection prevents tanks from corroding by reversing the naturally occurring electric current in the ground that can degrade tank walls. Two examples of cathodic protection are sacrificial anodes and impressed current. Sacrificial anodes are pieces of metal that are more electrically active than the steel tank. Because they are more electrically active, the current corrodes the pieces of metal rather than the steel tank. An impressed current protection system introduces an electric current into the ground through a series of anodes that are not attached to the underground tank. Because the electric current flowing from these anodes to the tank system is greater than the corrosive current attempting to flow from the tank system, the anodes are corroded rather than the tank. Regardless of the protection method used, the installation of a corrosion protection system that is field-fabricated must be supervised by an independent corrosion expert to ensure proper installation (§§264/265.192(f)).

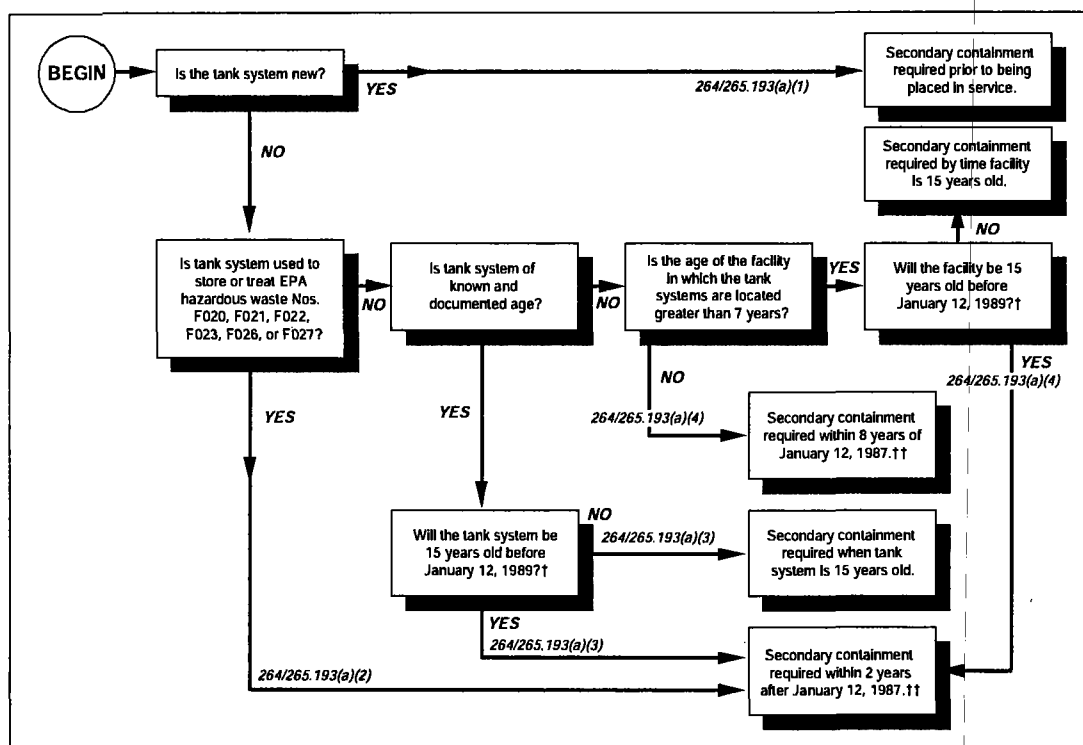
## SECONDARY CONTAINMENT AND LEAK DETECTION

Secondary containment and leak detection requirements were added to Part 264/265, Subpart J as part of the revisions promulgated July 14, 1986 (51 FR 25422). Secondary containment is an emergency short-term storage system designed to hold releases from hazardous waste tanks. Secondary containment and leak detection systems allow for detection of leaks from the primary or inner tank while providing a secondary barrier to contain releases and prevent them from entering the environment. Such systems also provide protection from spills caused by operational errors, such as overfilling.

Under §§264/265.193(a), all new hazardous waste tank systems must have secondary containment and leak detection before being placed in service. Secondary containment and leak detection for existing tanks is to be phased in over time, according to the schedule in Figure 1, based on the age of the tank and its hazardous waste contents.



**Figure 1**  
**SCHEDULE FOR RETROFITTING EXISTING TANKS**  
**WITH SECONDARY CONTAINMENT**  
 (adapted from OSWER Directive 9483.00-2)



† If a material stored becomes a hazardous waste subsequent to January 12, 1987, the date that it becomes hazardous (the effective date) plus two years should be used in place of January 12, 1989 (40 CFR §264/265.193(a)(5)).

†† If a material stored becomes a hazardous waste subsequent to January 12, 1987, the date that it becomes hazardous (the effective date) should be used in place of January 12, 1987.

## SECONDARY CONTAINMENT AND LEAK DETECTION STANDARDS

Secondary containment systems must be designed, installed, and operated so that no waste is released to the surrounding soil, groundwater, or surface water. The construction material or liner must be compatible with the waste to be stored or treated in the tank and must be capable of containing accumulated material until it is promptly removed. Such accumulations should be removed within 24 hours, or when such removal cannot be accomplished in a 24-hour period, within another time frame specified by the EPA Regional Administrator. The secondary containment system, like the tank itself, must have sufficient structural strength to prevent failure, and the foundation must be designed to resist failure due to normal movement of the surrounding soils (i.e., settlement, compression, or uplift).

As part of the secondary containment system, hazardous waste tanks must be equipped with a leak detection system capable of detecting failure in either the primary or

secondary containment structures. The presence of accumulated materials in the secondary containment system must be detected by such a system within 24 hours or at the "earliest practicable time" as set by the Regional Administrator on a case-by-case basis (§§264/265.193(c)(3)). Thermal conductivity sensors, electrical resistivity sensors, and vapor detectors are commonly used as leak detection devices. Daily visual inspections may also be used where tanks and tank components are physically accessible.

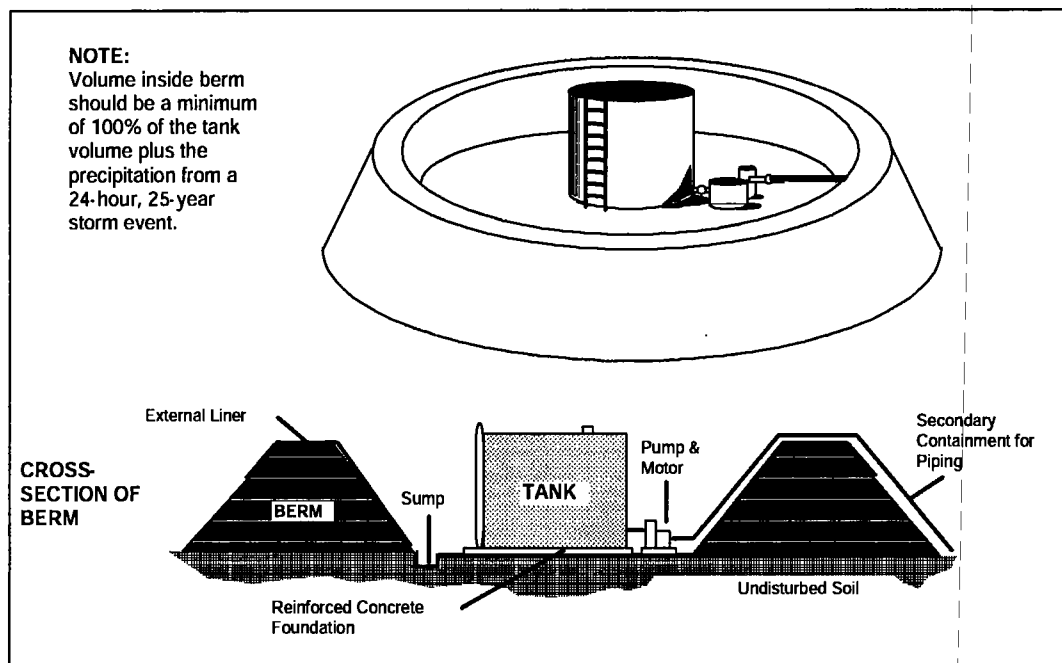
## SECONDARY CONTAINMENT DEVICES

In addition to stipulating overall system standards, the hazardous waste tank regulations mandate the use of one of four specific options in meeting the secondary containment requirements discussed above. The first option is the use of an external liner which is designed to work in conjunction with a barrier. This combination should be able to contain releases in a specific area and hold those releases until the containment area is cleaned. The next option is the use of a vault, an underground area with specific design requirements to contain releases that are not visible to the operator. The use of a double-walled tank (or a "tank within a tank") is the option that is considered to be the most protective of releases of hazardous waste outside the outer containment area. The fourth option, use of an alternative equivalent device, is subject to the approval of the Regional Administrator, as provided in §§264/265.193(g). Procedures to be followed in requesting such a variance from the secondary containment requirements are discussed later in this module.

### External Liner

An external tank liner (Figure 2) is designed to provide protection against lateral or vertical migration of leaking waste by completely surrounding the unit with an impermeable material. A liner can be made with many different types of materials such as synthetic membranes, concrete, clay, bentonite, soil, cement, or asphalt. The exact type of material or combination of materials used depends on site conditions, waste characteristics, and climate. The external liner system must be large enough to contain 100 percent of the capacity of the largest hazardous waste tank within its boundary. Because it can increase the rate of tank corrosion, stormwater run-on and infiltration should be minimized by using dikes and diversion ditches. If stormwater infiltration is not controlled in this manner, the system must have enough additional holding capacity to contain precipitation resulting from a 25-year, 24-hour storm event. External liner regulations are found in §§264/265.193(e)(1).

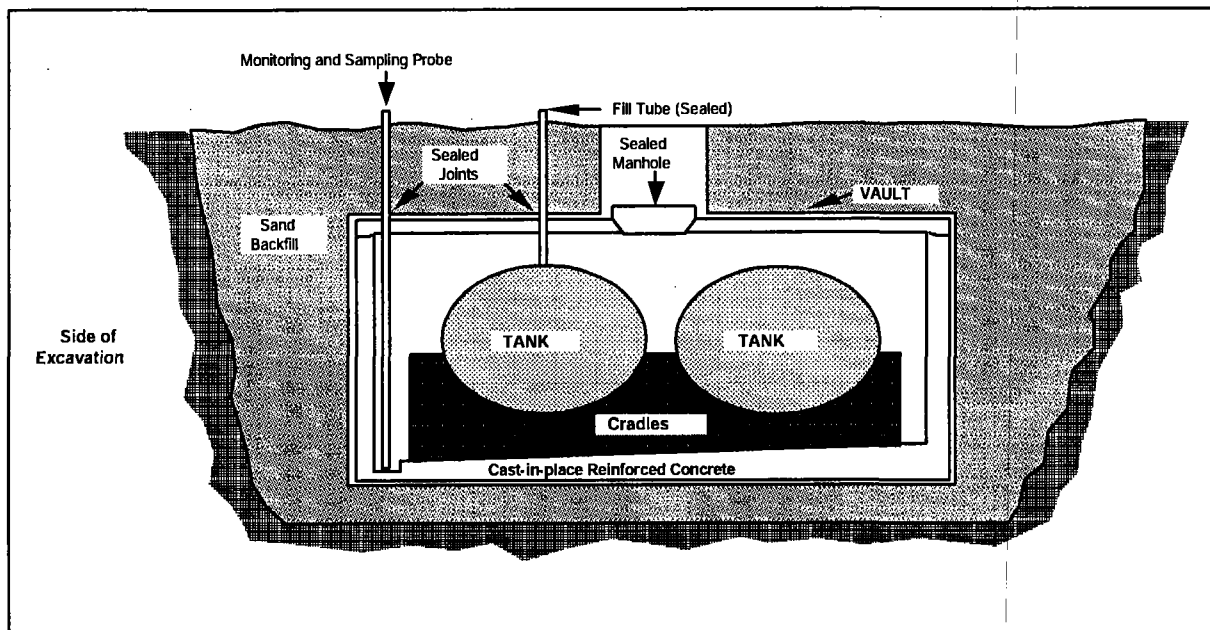
**Figure 2**  
**ABOVEGROUND TANK WITH EXTERNAL LINER**  
 (adapted from OSWER Directive 9483.00-1)



## Vault

In a vault system (Figure 3), the hazardous waste tank rests in an underground chamber usually constructed with concrete floors and walls and an impermeable cover. A closed aboveground building that houses a hazardous waste tank also may be considered to be a vault for purposes of secondary containment. Because of the inherently porous nature of concrete, the primary building material for vaults, these units must have a waterproof exterior and be lined inside with a leak-proof sealant. To further minimize contact with moisture, tanks inside vaults should rest on cradles or saddles, rather than on the vault floor. Tanks in these units may also be surrounded with backfilled earthen materials. Although filling the vault with soil precludes visual inspection of the hazardous waste tanks, the backfill can lend structural support to the unit and tanks and prevent the explosion of any ignitable wastes that may leak from the tank. Vault requirements are found in §§264/265.193(e)(2).

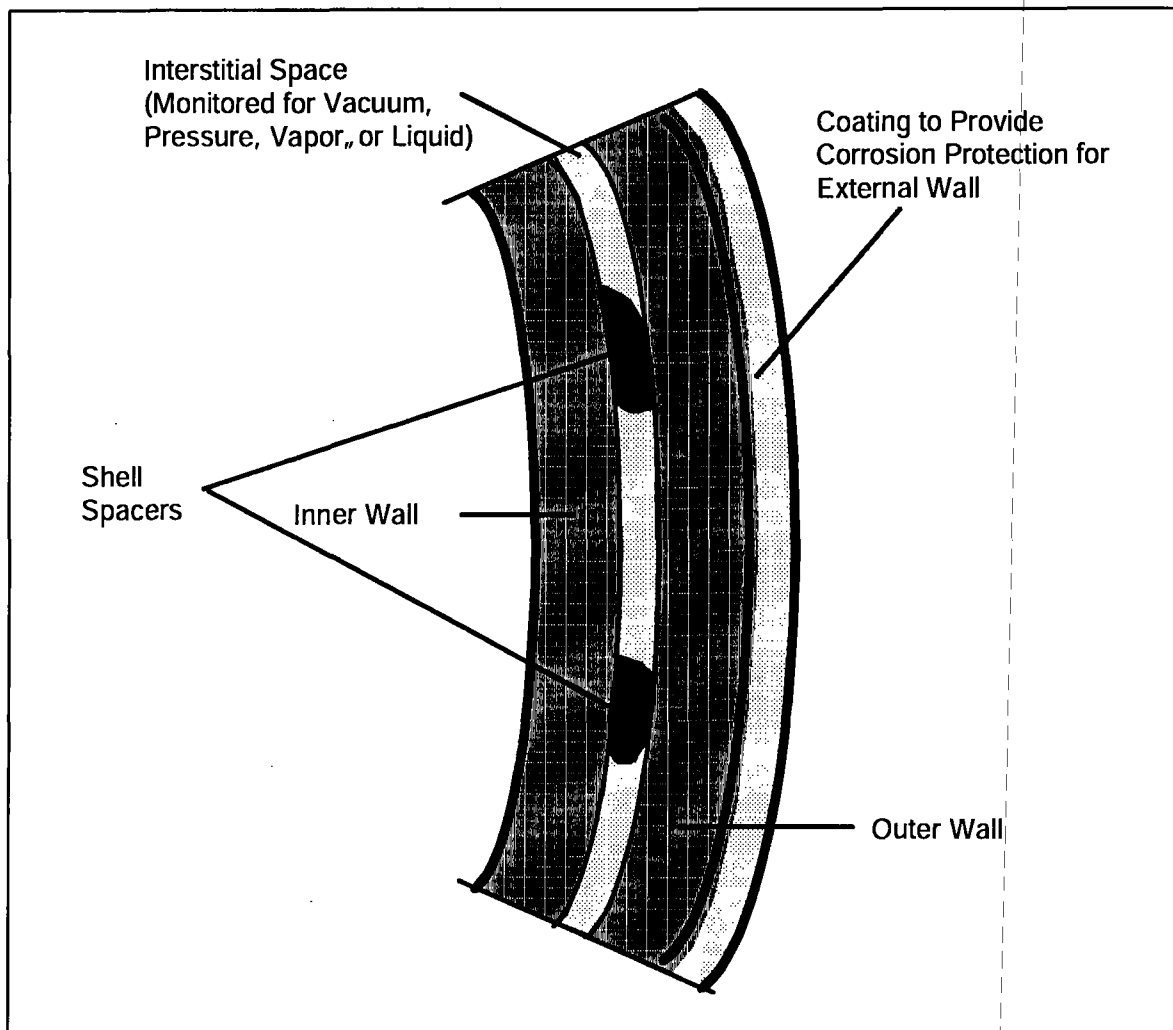
**Figure 3**  
**TANKS IN A VAULT**  
 (adapted from OSWER Directive 9483.00-1)



### Double-walled Tank

A double-walled tank (Figure 4) is best described as one tank completely enclosed inside another with a leak detection monitoring system installed between the two (in the interstitial space). The most common construction materials for this secondary containment option include corrosion-protected metal, epoxy, fiberglass, or metal with a synthetic membrane "wrap." Such a containment system must be designed and constructed so that any release from the inner tank is completely contained by the outer shell until the accumulated materials are removed (§§264/265.193(e)(3)). As discussed previously, the leak detection system must be capable of detecting leak activity between the tanks within 24 hours, or at the "earliest practicable time" as determined by the Regional Administrator. Double-walled tank specifications are found in §§264/265.193(e)(3).

**Figure 4**  
**CROSS-SECTION: DOUBLE-WALLED TANK**  
 (adapted from OSWER Directive 9483.00-1)



## ANCILLARY EQUIPMENT

All ancillary equipment must have full secondary containment in addition to the tank itself (§§264/265.193(f)). Examples of secondary containment for ancillary equipment are a trench, jacketing, or double-walled piping. When inspected daily, however, the following equipment is exempt from this requirement:

- Aboveground piping (not including flanges, joints, valves, and connections)
- Welded flanges, welded joints, and welded connections (including piping that is fused together with solvent cement or heat fusion)

- Seal-less or magnetic coupling pumps
- Aboveground pressurized piping systems with automatic shut-off devices.

## VARIANCES AND EXCEPTIONS

A variance from the secondary containment regulations can be obtained for certain tank systems. There are two types of variances: technology-based and risk-based. A technology-based variance must demonstrate that the release of hazardous waste or constituents will be prevented by alternative designs, operating practices, and location characteristics equally as well as by the secondary containment options provided (§§264/265.193(g)(1)). A risk-based variance must demonstrate that there would be no potential hazard to human health or the environment if a release were to reach groundwater or surface water. This variance is not available to new underground tank systems (§§264/265.193(g)(2)). Administrative procedures for requesting a variance are found in §§264/265.193(h).

Alternatively, some tanks may automatically qualify for an exemption from secondary containment and leak detection requirements. These exemptions would apply to:

- Tanks containing no free liquids that are situated inside a building with an impermeable floor (§§264/265.190(a))
- Tanks, including sumps, that serve as part of a secondary containment system (§§264/265.190(b)).

## 2.3 OPERATING STANDARDS

Hazardous waste tanks must be operated so that releases will be minimized or eliminated. Hazardous wastes or treatment reagents must not be placed in a tank system if they can cause any part of the system to fail (§§264/265.194). Spills or overflows from the tank or secondary containment system must be prevented by using, at a minimum:

- Spill prevention controls such as check valves
- Overfill prevention controls such as high level alarms and automatic feed cutoffs
- Sufficient freeboard in uncovered tanks to prevent overflow due to wave or wind action or precipitation. Freeboard is the vertical distance between the top of a tank and the surface of the waste in the tank.

## 2.4 INSPECTIONS

In order to verify that hazardous waste tanks and components are operated and maintained in satisfactory condition, tank systems must be routinely inspected. Properly conducted inspections should minimize the probability of accidental releases into the environment and contribute to safe working conditions in and around the storage area. To meet these objectives, inspections must thoroughly identify leaks, deterioration, corrosion, or structural fatigue in any portion of the tank or system components. Secondary containment systems and cathodic protection devices also require regular inspection. In addition to visual assessment of the tank system, required inspections must incorporate analysis of any data received from leak detection monitors and tightness or assessment tests. Documentation of all hazardous waste tank inspections should be kept in the facility operating record (§§264.195(d)/265.195(c)). Owners and operators must inspect tank systems at different levels of frequency depending on whether the system has secondary containment and the portion of the tank system of concern. Table 1 outlines the inspection requirements for tank systems with full secondary containment systems (§§264/265.195). Table 2 outlines the inspection requirements for tank systems without secondary containment (§§264/265.193(i)).

**Table 1**  
**INSPECTION REQUIREMENTS WITH FULL SECONDARY CONTAINMENT**  
 (adapted from OSWER Directive 9483.00-1)

| Regulation                                     | Inspection Requirement  | Time Frame  |
|--|---|---|
| §264.195(a)<br>§265.195(a)(1)                  | Overfill controls   | Develop schedule and procedures for permitted tanks<br><br>Each operating day* for interim status |
| §§264.195(b)(1) & (2)<br>§§265.195(a)(2) & (3) | Visual inspection of aboveground portion of the tank to detect corrosion or releases<br><br>Analysis of monitoring and leak detection data (pressure or temperature gauges, monitoring wells, and leak detection devices) | Each operating day*   |
| §264.195(b)(3)<br>§265.195(a)(4)               | Construction materials and externally accessible portions of tank and secondary containment system to detect erosion or signs of releases (e.g., wet spots, dead vegetation)  | Each operating day*   |
| §264.195(c)(1)<br>§265.195(b)(1)               | Proper operation of cathodic protection system  | Within six months of initial installation and annually thereafter                                 |
| §264.195(c)(2)<br>§265.195(b)(2)               | Sources of impressed current  | Bimonthly   |

\*In a verbal clarification from the Agency, "each operating day" has been defined as "every day the tank is in operation (i.e., storing or treating hazardous waste) and not necessarily just on days the facility is open for business."

**Table 2**  
**INSPECTION REQUIREMENTS WITHOUT FULL SECONDARY CONTAINMENT**  
**(adapted from OSWER Directive 9483.00-1)**

| Regulation                       | Inspection Requirements   | Time Frame  |
|----------------------------------|---|---|
| §264.193(i)(1)<br>§265.193(i)(1) | For unenterable underground tanks:<br>A leak test that meets the requirements of §264.191(b)(5), or another method as approved by the EPA Regional Administrator  | Annually  |
| §264.193(i)(2)<br>§265.193(i)(2) | For enterable underground tanks:<br>A procedure to conduct a leak test that meets requirements in §264.191(b)(5), or have the overall condition of the tank system assessed by an independent, qualified, registered, professional engineer | On a schedule to be approved by the Regional EPA Administrator for permitted tanks<br><br>Annual for interim status tanks |
| §264.193(i)(3)<br>§265.193(i)(2) | For ancillary equipment:<br>A leak test or other integrity assessment as approved by the Regional Administrator   | Annually  |
| §264.193(i)(4)<br>§265.193(i)(3) | A record of the results of all the above assessments must be maintained on file at the facility   |   |
| §264.193(i)(5)<br>§265.193(i)(4) | Tank systems found to be leaking or unfit for use must comply with the §§264/265.196 requirements:<br>"Response to leaks or spills and disposition of leaking or unfit-for-use tank system"   | Immediately   |

## 2.5 RELEASE RESPONSE

A tank system or secondary containment system from which there has been a leak or spill, or which is unfit for use, must be taken out of operation immediately, and the owner and operator must follow some straightforward requirements. First, the owner and operator must stop the flow of waste into the tank and inspect the system to determine the cause of the release (§§264/265.196(a)). Next, any waste remaining in the tank must be removed from the tank or secondary containment system within 24 hours or at the "earliest practicable time" (§§264/265.196(b)). To prevent further migration of any releases to the environment, the owner and operator must also remove and properly dispose of any contaminated media (§§264/265.196(c)).

Unless the release is exempted under §§264/265.196(d)(2), the owner and operator must notify the Regional Administrator or National Response Center and submit a follow-up written report to the Regional Administrator within 30 days (§§264/265.196(d)(3)). The



tank must then be repaired or equipped with secondary containment in accordance with the regulations summarized in Table 3, or close the tank system so that it can no longer be used (§§264/265.197). If any of the repairs are major, they must be certified by an independent, qualified, registered, professional engineer and this certification must be submitted to the Regional Administrator (§§264/265.196(f)).

Except for the notification and reporting requirements of §§264/265.196(d), these procedures apply even if a release has been contained by a tank system's secondary containment.

**Table 3**  
**REQUIRED RESPONSES TO TANK SYSTEM RELEASES**  
(adapted from OSWER Directive 9483.00-1)

| Type of Release   | Required Actions  | Citation                          |
|---|---|-----------------------------------|
| Spill with no damage to secondary containment                                   | Remove released waste and repair, if necessary  | §§264/265.196(e)(2)               |
| Leak from tank system to secondary containment                                  | Repair tank system  | §§264/265.196(e)(3)               |
| Aboveground leak from tank system with no secondary containment                 | Repair tank system and implement visual inspection. Note: Replaced components qualify as new tank system components regulated under §§264/265.192 and .193      | §§264/265.196(e)(4)               |
| Underground or inaccessible leak from tank system with no secondary containment | Repair tank system and install secondary containment for the entire component, per §§264.192 and 264.193 requirements   | §§264/265.196(e)(4)               |
| Leak from secondary containment   | Repair or replace secondary containment. New components must meet §§264.192 and 264.193 requirements  | 51 <u>FR</u> 25456; July 14, 1986 |
| Leak from tank system secondary containment requiring major repair              | Repair tank system or secondary containment, obtain certification as appropriate and adequacy from an independent, qualified, registered, professional engineer | 51 <u>FR</u> 25456; July 14, 1986 |

## 2.6 CLOSURE

Whenever possible, a storage or treatment tank system must be "clean closed" by removing or decontaminating all waste residues, contaminated containment system

components, contaminated soils, and contaminated structures and equipment. A clean-closed system has no post-closure responsibilities, but the general closure and financial responsibility requirements in Part 264/265, Subparts G and H, must still be met.

If clean closing is not an option, an owner and operator can use the option of leaving contamination in place. If this occurs, there must be a plan for taking care of the remaining waste for a number of years after closure (known as "post-closure"). Because this concept of leaving the waste in place is already covered in the regulations for landfills (i.e., units that always leave waste in place), EPA defers post-closure regulation for tanks to the landfill regulations (§§264/265.197(b)). All requirements for landfills in Subparts G and H would apply, as well as the specific requirements for closure of landfills in Subpart N. (For more information about closure and post-closure, see the module entitled Closure and Post-Closure.)

If a tank system does not have secondary containment and has not been granted a variance, it is considered to be less protective against a release to the environment. EPA therefore requires the facility to develop a plan for clean closing the tank system, as well as a plan for closing the unit as if it were a landfill. In addition, the facility must show that it has sufficient funds to close the tank in either instance. Such closure plans and financial assurance requirements are discussed in more detail in other training modules.

## 2.7 REGULATIONS FOR SPECIAL WASTES

Owners and operators storing ignitable or reactive wastes are subject to special management practices designed to prevent accidental combustion or explosion of these wastes. Owners and operators of facilities handling ignitable or reactive wastes must comply with the following requirements:

- The owner and operator comply with general requirements for handling these special wastes (§§264/265.17(b))

or

- The waste is protected from any material or condition that could cause it to ignite or react

or

- The tank is used only in emergencies.

When ignitable or reactive wastes are stored in tank systems, an adequate buffer zone must be maintained between any such tank system and any public ways, streets, alleys, or adjoining property. The buffer zone must comply with all

applicable sections of the National Fire Protection Association's Flammable and Combustible Liquids Code (1977 or 1981 editions only).

Wastes or materials that are incompatible with one another cannot be combined in the same tank, nor can an incompatible waste be placed in a tank that has not been decontaminated after prior use, unless the special precautions in §§264/265.17(b) have been taken (§§264/265.199). Examples of potentially incompatible wastes are provided in Appendix V of Part 264/265.

## **2.8 WASTE ANALYSIS AND TRIAL TESTS**

Owners and operators of interim status hazardous waste tanks must perform additional waste analysis and trial tests beyond what is required for all treatment, storage, and disposal facilities (§265.200). Specifically, when there is a substantial change in the waste stored or treatment process conducted in an interim status tank system, the owner and operator must:

- Conduct waste analyses and trial treatment or storage tests
- or
- Have documentation on similar waste stored or treated under similar conditions to those proposed, indicating that the proposed conditions will not cause any part of the system to rupture, leak, corrode, or otherwise fail.

### 3. SPECIAL ISSUES

#### 3.1 UNDERGROUND STORAGE TANK PROGRAM

Separate from the hazardous waste tank program and regulations, 40 CFR Part 280 sets forth requirements pursuant to Subtitle I of HSWA for underground storage tanks (USTs). Tanks regulated under Part 280 contain "regulated substances," which are defined in §280.12 to include petroleum products and CERCLA hazardous substances. The primary distinction between the two regulatory sections is based on tank content (hazardous wastes vs. regulated substances). Program requirements for tanks vary significantly between Part 264/265 and Part 280. Although both sets of regulations govern tank systems, always keep in mind that tanks holding hazardous wastes will be subject to the provisions of RCRA Subtitle C (Part 264/265) rather than Subtitle I (Part 280). Beginning your analysis of every issue or question concerning tanks with this step will enable you to distinguish tanks that are regulated under Subpart J of Part 264/265 from those that fall under the purview of the Part 280 regulations. See the module entitled Underground Storage Tanks for a detailed discussion of the UST program.

#### 3.2 TANKS HOLDING NEWLY LISTED WASTES

As new hazardous wastes are identified, tanks holding those wastes will become newly subject to the Part 264/265, Subpart J, regulations and must be retrofitted to meet the current design and operating standards for tanks and secondary containment. These tanks, regardless of the installation date, would be classified as new tanks, but would fall into interim status. Until the facility receives a final RCRA hazardous waste tank permit, the tanks would be regulated under Part 265, Subpart J, and would be subject to the secondary containment retrofitting timeframes specified in the regulations and in Figure 1. Nevertheless, tanks containing newly regulated hazardous wastes will always have a minimum of two years from the date the waste became hazardous (the effective date) to install secondary containment for the tank (§§264/265.193(a)(5)).

#### 3.3 AIR EMISSION STANDARDS

On December 6, 1994, (59 FR 62896), EPA published a final rule which promulgated air emission standards for containers, tanks, and surface impoundments at TSDFs and large quantity generator sites. This rule, as amended by the November 25, 1996, Federal Register (61 FR 59932), requires hazardous waste tanks to comply with Part 264/265, Subparts AA, BB, and CC (§§264.200 and 265.202). EPA also amended this rule in a December 8, 1997 Federal Register (62 FR 64636). (See the module entitled Air Emission Standards for more details about the Subpart AA, BB, and CC requirements.)